

**EPA REGISTRATION NUMBER 71995-29 – VOLUME 1**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

SEP 16 2004

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

Ms. Rhonda M. Mannion  
Monsanto Company, Lawn & Garden Products  
1300 I Street N. W., Suite 450 East  
Washington, DC 20005

Dear Ms. Mannion:

Subject: Roundup Weed & Grass Killer Concentrate Plus (Revise Master Label)  
EPA Registration No. 71995-29  
Application Dated August 18, 2004

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended is acceptable. Amended labeling will supercede all previously accepted ones. A stamped copy of labeling is enclosed for your records.

Sincerely,

*Vickie K. Walters for*  
James A. Tompkins  
Product Manager 25  
Herbicide Branch  
Registration Division (7505C)



EPA Reg No. 71995-29

[Editorial Notes: Bracketed text [ ] is for internal use or serves as a 'place holder' for graphics. Parenthetical text ( ) denotes optional wording.]

[Refer to APPENDIX 1 for consolidated list of label claims.]

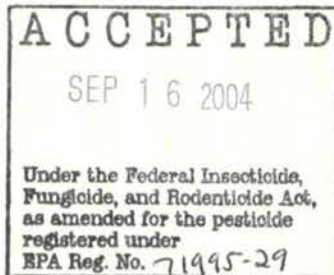
[Refer to APPENDIX 2 for packaging related claims/instructions]

## Roundup Weed & Grass Killer Concentrate Plus

Alternate Brand Name : MON 78307 Herbicide

### Active Ingredient

|                                       |         |
|---------------------------------------|---------|
| Glyphosate, isopropylamine salt ..... | 18.0 %  |
| Diquat dibromide.....                 | 0.73 %  |
| Other Ingredients .....               | 81.27 % |



### KEEP OUT OF REACH OF CHILDREN

#### CAUTION

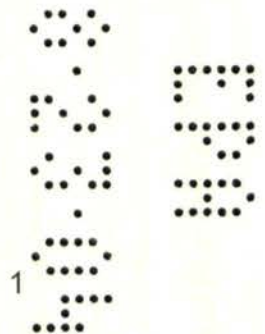
See back panel booklet for additional precautionary statements.

(Read precautions and directions on back label.)

NET [xxx]

71995-29

EPA Approved 12 July 2004  
Notification dated 14 July 2004  
Amendment Submitted 18 August 2004



|   |   |
|---|---|
| <b>Product Facts</b>  |   |
| Makes up to X gallons [see Appendix 2 for calculation]  |   |
| Treats up to xx sq ft (approx. size of XX tennis courts)  |   |
| [ When calculating coverage, one gallon treats 300 sq ft and a tennis court is 2,808 sq ft.]  |   |
| <b>KILLS WEEDS</b>  | [Illustrate grassy, broadleaf and woody weeds]<br>ALL TYPES OF WEEDS & GRASSES  |
| <b>WHERE TO USE</b>   | <ul style="list-style-type: none"> <li>• On patios, walkways, driveways, gravel or mulch beds</li> <li>• Around flowers, shrubs or trees</li> <li>• Along fences</li> <li>• In large areas - For lawn replacement</li> <li>                                    - For garden plot preparation*</li> <li>• Other areas in (of) your yard</li> </ul> |
| <p>* <b>IMPORTANT:</b> While Roundup Concentrate Plus may be used to prepare a vegetable garden for planting, DO NOT USE for spot weed treatment after planting (any) fruits or vegetables.</p> |   |
| <b>AMOUNT TO USE</b>  | <p><b>For best results</b></p> <ul style="list-style-type: none"> <li>• 6 fl oz (12 Tbs) per gallon of water</li> </ul> <p>Apply on warm days in bright sunlight</p>  |
| [phone icon]  | <p><b>Questions, Comments or Medical Information</b></p> <p>call (insert contact #)      <a href="http://www.roundup.com">www.roundup.com</a></p>   |

[For products where an anti-theft device has been added] This bottle contains an anti-theft device, either inside or on the back of the bottle. It does not affect [Insert Brand Name] performance.

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.



**MIXING INSTRUCTIONS**

*[Optional tank sprayer illustration]*

**Tank Sprayer** (plastic, aluminum, fiberglass, plastic-lined steel or stainless steel.  
(Do not (mix, store or) apply with (in) a galvanized or unlined steel sprayer.)

- (For tough established weeds / For best results,) add 6 fl oz (12 Tbs) to 1 gallon of water.
- *[Optional text]* (For easy to kill weeds such as (small) seedlings, add 3 fl oz (6 Tbs) to 1 gallon of water.
- Spot treat or spray evenly over 300 sq ft

*[Optional DNS illustration]*

**Hose-End Sprayer**

For large areas consider using the Ortho Dial 'n Spray®

- Set dial to 6 oz.
- To sprayer jar add 6 fl oz (12 Tbs) for each 300 sq ft. DO NOT add water.
- Spray evenly over measured area.
- After spraying, unused product can be poured back into its original container.

1 Tablespoon (Tbs) = 3 teaspoons (tsp)

1 fl oz = 2 Tbs

Do not (mix, store or) apply with (in) a galvanized or unlined steel (except stainless steel) sprayer, or through any irrigation system.

To clean sprayer after use, rinse sprayer and all sprayer parts with water 3 times. Spray rinse water on bare soil or gravel. After cleaning, sprayer may be used for other products.

**USER SAFETY RECOMMENDATIONS** *[optional illustration]*

- Clothing and protective equipment exposed to this product should be washed in detergent and hot water. Such items should be kept and washed separate from other laundry.
- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing immediately if product gets inside; then wash thoroughly and put on clean clothing.

**HOW TO APPLY** *[optional illustration]*

- Spray the weeds or grasses you want to kill until thoroughly wet.
- When spot treating weeds around desirable plants, shield plants from drift with a sheet (piece) of cardboard or plastic. If desirable plants are accidentally sprayed, rinse off immediately with water (or cut off treated area).

**IMPORTANT:** Do not spray plants or grasses you like - they will die. Not recommended for spot weed control in lawns since Roundup *[or insert brand name]* kills lawn grasses.

**Application Restrictions:** Do not apply this product in a way that will contact any person or pet, either directly or through drift. Only the person applying this product may be in the area during application.

**WHEN TO APPLY** *[optional illustration]*

- Use anytime weeds and grasses are actively growing. (Apply when weeds are actively growing.)
- For best (fastest visual) results, apply during warm, sunny weather (above 60° F) to accelerate systemic movement from foliage to roots.
- Apply when air is calm to prevent drift to desirable plants.
- *[Insert brand name]* is Rainproof in 2 hours (30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes)
- *[Alternate text]* (RAIN-PROOF:) Rain or watering 2 hours (30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes) after (of) application will not wash away effectiveness.
- *[optional text]* Apply when weeds are small and before seeds form. Established (Hard to kill) weeds may require a repeat application.

**ADDITIONAL TIPS** *[Optional section]* *[optional illustration]*

- **For Lawn Replacement**

Use *[Insert brand name]* to kill a (an old) (an unwanted) lawn and (its) weeds before planting (a) new lawn (OR prior to laying a patio, sidewalk, or driveway).

*[Alternate text]* For lawn replacement use *[insert brand name]* to kill lawn and(&) weeds before planting new lawn.

- Skip one mowing before spraying.
- If soil is dry, water before application and 2 to 3 days after application.



**EPA Reg No. 71995-29**

- Wait 7 days after last application to rake, till or replant with seed or sod.  
    *[Alternate text]*
- Wait 7 days for weeds and lawn to die. Repeat if necessary.
- Rake or till to prepare area for planting seed or sod.
- (If green patches remain after 7 days, reapply.)

*[Alternate section]*

(Great) *[Insert brand name]* Project: Lawn Renovation

Use *[Insert brand name]* to kill sections of a weed-infested lawn before reseeding.

- Apply *[Insert brand name]* to lawn weeds and grasses Wait 7 days after application to rake, till or replant with seed or sod.
- Work (1" of) Scotts Lawn Soil with Starter Fertilizer into existing soil, mixing well.
- For thick, green grass – guaranteed -- spread Scotts Pure Premium (or other Scotts grass seed) and water regularly (daily) to keep area moist (follow package instructions).
- For best results, add a thin layer of Scotts Miracle-Gro Sphagnum Peat Moss (or Scotts Lawn Soil) over the area to help seeded area stay moist throughout germination period.

• **For Flowerbed and Garden (Plot) Preparation**

Use *[Insert brand name]* to kill weeds, grasses and brush before planting flowers, fruits, vegetables, trees or shrubs.

- If soil is dry, water before application and 2 to 3 days after application.
- Apply evenly over treatment area.
- (Wait 4 to 6 days for product to kill plants then cleanup plant refuse and till soil.)
- Wait (at least) 1 day before planting flowers, trees and shrubs. (Refer to the **When To Replant** section for planting intervals for fruits and vegetables)

*[Alternate section]*

• (Great) *[Insert brand name]* Project: Garden(Plot) Preparation

Use *[insert brand name]* to kill unwanted weeds and grasses before planting flowers, fruits, vegetables, trees or shrubs.

- Apply *[insert brand name]* to vegetation in planting bed
- (Wait 4 to 6 days for product to kill plants then cleanup plant refuse and till soil.)
- Wait (at least) 1 day after application before planting flowers, trees, and shrubs. (Refer to the **When To Replant** section for planting intervals for fruits and vegetables)
- For best results, add 3" of Miracle-Gro Garden Soil to your garden. Rototill or spade to a depth of 6", mixing well.
- Feed (new) plants every 2 weeks with Miracle-Gro Plant Food (follow package instructions).

- **To Kill Vines**

- If vines are growing up poles, fences, or tree trunks with mature bark, cut vines to a height of 3 to 4 feet and spray vines thoroughly.
- If vines are climbing shrubs or tree trunks with green bark, cut vines at base and treat as directed for stumps or spray regrowth. If spraying regrowth, shield shrubs and green bark from spray drift with a sheet (piece) of cardboard or plastic.

- **To Kill Stumps**

- Cut living stump close to ground.
- Drive (drill) 4 to 5 holes into freshly cut stump.
- Immediately pour undiluted product into holes.

**IMPORTANT:** Some trees may share the same root system. Adjacent trees having a similar age, height and spacing may signal shared roots system. Injury may occur to non-treated trees when one or more trees sharing common roots are treated.

- **Kudzu**

For best results, apply in mid to late summer when vines are mature and actively growing.

- **Wild Blackberry**

Spray anytime plants are actively growing. Dead canes should be cut down and removed. Reapplication is often required to kill deep roots.

- **Poison Ivy & Poison Oak**

Contact with these plants anytime of the year can cause an allergic reaction. Spray anytime plants are actively growing, but at least 4 weeks before the first killing frost in the fall. Reapply, if new growth appears. Handle dead plants with rubber gloves. Dispose of plants and rubber gloves in tightly sealed garbage bags.

|   |
|---|
| <b>WHEN TO REPLANT</b> <i>[optional illustration]</i> |
|---|

- All ornamental flowers, trees and shrubs may be planted **1 day after** application.
- Lawn grasses, herbs, vegetables (all), and fruits may be planted **3 days after** application.



**HOW IT WORKS** *[optional illustration]*

Roundup [or *insert brand name*] enters plants through foliage and moves systemically to the roots, killing weeds by stopping the production of a substance found in plants. Any product (Roundup) [*insert brand name*] not absorbed by plants will be deactivated after it hits the soil. Weeds usually yellow and wilt within hours with complete kill in 1 to 2 weeks.

*[Optional section]*

**KILLS ALL TYPES OF WEEDS & GRASSES** *[optional illustration]*

**Weeds (including):** Artichoke thistle, beggarweed, black medic, blue mustard, blue toadflax, brassbuttons, broadleaf plantain, burclover, buttercup, Canada thistle, cattail, chickweed, cocklebur, common groundsel, common mullein, common plantain, common ragweed, creeping beggarweed, creeping-charlie, curly dock, dandelion, dog fennel, evening primrose, false dandelion, fiddleneck, field bindweed (wild morningglory), field pennycress, filaree, Florida pusley, garden spurge, henbit, horsenettle, horseradish, horseweed/ marestail, iceplant, knapweed, knotweed, lambsquarters, lantana, little bittercress, London rocket, mallow, mayweed, milkweed, mouseear chickweed, narrowleaf (buckhorn) plantain, nightshade (silverleaf), oldenlandia, oxalis, Pennsylvania smartweed, pennywort, poison hemlock, prickly lettuce, primrose, prostrate spurge, puncturevine, ragweed, red clover, redroot pigweed, shepherdspurse, smooth catsear, smooth pigweed, sowthistle, spotted spurge, tansy ragwort, tansymustard, teaweed, trumpetcreeper, tumble mustard, Virginia creeper, white clover, whitetop, wild barley, wild mustard, wild oats, wild sweet potato, yellow starthistle, and other broadleaf weeds

**Grasses (including):** Annual bluegrass, annual ryegrass, bahiagrass, barnyardgrass, bentgrass, Bermudagrass, brome grass, Cogongrass, crabgrass, creeping bentgrass, dallisgrass, fall panicum, fescue, field sandbur, foxtail, goosegrass, guineagrass, Johnsongrass, Kentucky bluegrass, kikuyugrass, lovegrass, maidencane, nimblewill, nutsedge, orchardgrass, pampas grass, perennial ryegrass, purple nutsedge, quackgrass, sandspur, smooth brome grass, sprangletop, St. Augustinegrass, tall fescue, Texas panicum, Timothy, torpedograss, vaseygrass, witchgrass, yellow nutgrass, zoysia and other grassy weeds

**Brush (Tough Weeds), Unwanted Trees, Shrubs & Vines (including):**

Alder, ash, (quacking) aspen, blackberry, bluegum eucalyptus, broom (French, Scotch), buckwheat, ceanothus, chamise, cherry, coyote brush, dewberry, elderberry, elm, eucalyptus, giant reed, hawthorn, hazel, honeysuckle, kudzu, locust, madrone, maple, oak, persimmon, poison oak, poison ivy, poplar, raspberry, sage, sagebrush, salmonberry, saltcedar, sassafras, sumac, sweetgum, tan oak, thimbleberry, tree



EPA Reg No. 71995-29

tobacco, wild rose (multiflora) willow and other tough weeds

**STORAGE AND DISPOSAL** *[trash can illustration]*

**PESTICIDE STORAGE:** Store in original container in a safe place away from direct sunlight.

**DISPOSAL:** If empty: Do not reuse this container. Place in trash or offer for recycling if available. If Partly Filled: Call your local solid waste agency (or 1-800-CLEANUP) for disposal instructions. Never place unused product down any indoor or outdoor drain.

**HOW TO REFILL ROUNDUP WEED & GRASS KILLER READY-TO-USE CONTAINERS** *[Optional section]*

- **24 fl oz Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 2 fl oz of Roundup Concentrate Plus *[Insert brand name for EPA Reg. No. 71995-29]* then fill with water very slowly to avoid foaming.
- **½ Gallon Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 5 fl oz of Roundup Concentrate Plus *[Insert brand name for EPA Reg. No. 71995-29]* then fill with water very slowly to avoid foaming.
- **Gallon Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 10 oz of Roundup Concentrate Plus *[Insert brand name for EPA Reg. No. 71995-29]* then fill with water very slowly to avoid foaming.
- **1.33 Gallon Roundup PNS (II):**  
To empty container add 13 fl oz of Roundup Concentrate Plus *[Insert brand name for EPA Reg. No. 71995-29]* then fill with water very slowly to avoid foaming.
- **6L Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 16 fl oz of Roundup Concentrate Plus *[Insert brand name for EPA Reg. No. 71995-29]* then fill with water very slowly to avoid foaming.
- **2 Gallon Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 20 fl oz of Roundup Concentrate Plus *[Insert brand name for EPA Reg. No. 71995-29]* then fill with water very slowly to avoid foaming.

**PRECAUTIONARY STATEMENTS** *[optional illustration]*

*[re-entry icon]* People and pets may enter treated area after spray has dried.

**HAZARDS TO HUMANS & DOMESTIC ANIMALS**

**CAUTION:**

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

| FIRST AID  |   |
|--|---|
| If in eyes   | <ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after first 5 minutes, then continue rinsing eyes.</li><li>• Call a poison control center (insert contact telephone #) or doctor for treatment advice.</li></ul> |
| Emergency Medical Information  |   |
| <ul style="list-style-type: none"><li>• Have the product container or label with you when calling a poison control center or doctor, or going for treatment.</li><li>• You may contact (insert contact telephone #) for emergency medical treatment information.</li><li>• This product is identified as <b>[Insert brand name], Reg. No. 71995-29</b></li></ul> |   |

**ENVIRONMENTAL HAZARDS:** This product is toxic to aquatic invertebrates. Do not apply directly to any body of water. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

**NOTICE:** Buyer assumes all responsibility for safety and use not in accordance with directions.

This product is protected by U.S. Patents No. 5,683,958 and No. 5,703,015 and No. 6,063,733 and No. 6,121,199 and No. 6,121,200. Other patents pending. No license granted under any non-U.S. patent(s).

This is an end-use product. Monsanto does not intend and has not registered if for reformulation or repackaging.

EPA Reg No. 71995-29

[phone icon] Questions, Comments or Medical Information  
call insert contact # [www.roundup.com](http://www.roundup.com)

Roundup is a trademark of Monsanto Technology LLC

©[ ] MONSANTO COMPANY

Manufactured for  
Monsanto Company, Lawn & Garden Products  
P.O. Box 418  
Marysville, OH 43041  
Form [ ]  
EPA Reg. No. 71995-29  
EPA Est. 239-IA-3<sup>1</sup>, 58996-MO-1<sup>A</sup>  
Superscript is first letter of lot number  
Made in USA



**APPENDIX 1 – Consolidated List of Label Claims**  
*[Ordered alphabetically]*

- ASPCA approved *[ASPCA seal of approval to be submitted]*
- Absorbed into both broadleaf and grassy weeds
- Absorbs on contact, starts working immediately
- Also use for large jobs such as lawn renovation and vegetable and flower garden preparation
- Approved for most (many) lawn and garden uses
- Before *[weed graphics]* / After *[weed graphics]*
- Begins absorbing on contact
- Can be used for habitat restoration, controlling exotic vegetation, and for site preparation of wildlife food plots
- Can reseed or sod lawns 7 days after treatment
- Concentrated for extra value
- Concentrated formula
- (Contains) FastAct™ (technology)
- Dead Weeds Guaranteed (or Your Money Back)
- Dead (weeds) in a day
- Deactivates in soil
- Does not have soil activity
- Economical
- Economical concentrate formula
- Easy to apply with an Ortho Dial 'n Spray®, hose-end, tank or (hand held) trigger sprayer
- Even if it rains – Roundup *[or insert brand name]* won't lose its effectiveness
- Exclusive Roundup *[or insert brand name]* formula
- Experience the Roundup Advantage (peel back this panel for detail) (see details inside / underneath this booklet) (see details on back panel)
- FastAct™ (Technology)
- Fast-acting formula
- Fast-acting formula works twice as fast (50% faster)
- Fast-acting formula absorbs to root more quickly
- Fastest Roundup Concentrate Available
- For control that doesn't (won't) wash away
- For general weed control - kills weeds and grasses in 1 to 2 weeks - roots and all
- For weeds that are dead in a (one) day
- Guaranteed same effective results even if it rains within hours
- Guaranteed effective: Kills over 200 types of weeds and grasses, roots and all, with just one application
- Guaranteed (we guarantee it)
- Ideal for killing unwanted weeds and grasses throughout your yard. Use along fences;

## EPA Reg No. 71995-29

- in cracks of walks, drives and patios; and around flower beds, trees and shrubs
- Improved extra strength formula
- Improved formula, completely kills even the toughest weeds and grasses
- Keeps driveways, walkways, landscaping beds, and flower gardens weed-free all season long
- Kills almost all (annual and perennial) weeds, grasses and other unwanted plants
- Kills existing weeds only, no residual activity in soil
- Kills more weeds in more places.
- Kills over 100 weeds
- Kills (to) the root
- Kills (the toughest weeds and grasses) the root so weeds (they) don't come back
- Kills the root so weeds don't come back
- Kills the roots of (both) broadleaf and grassy weeds
- Kills the weed you see and the root you don't
- Kills unwanted weeds and grasses, roots and all
- Kills weeds in flowerbeds, around trees, shrubs and fences, and on patios, paths, sidewalks, sidewalk cracks, walkways, driveways, and other areas in your yard
- Kills weeds, roots and all
- Lawns and gardens can be reseeded or planted soon after treatment
- Make only what you need
- Multipurpose grass and broadleaf weed control
- NEW!
- Next day (this weekend) results: Begins killing on contact, visible results in 24 hours
- No odor
- No root. No weed. No problem.
- NOW!
- Now a shorter wait for replanting!
- Once it enters the plant, it won't wash off
- One application kills over 200 types of weeds and grasses, roots and all (maximum effectiveness)
- Only Roundup's effectiveness (exclusive formula) won't be washed away by rain or watering 2 hours (30, 45, 60, 90 minutes) after treatment
- Only Roundup's effectiveness (formula) won't be washed away by rain or watering 2 hours ( 1 hour)(30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes) after treatment
- Proven (trusted) performance: Only Roundup [*or insert brand name*] works the first time, every time – and has for 25 years
- Provides maximum control: Kills weeds to the root so they don't ever come back
- Quick kill formula (the toughest)
- Quick-action formula lets you see results 50% faster (two times)
- Ornamental gardens can be reseeded or planted 1 day after treatment
- RainFast in hours (30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60



EPA Reg No. 71995-29

- minutes; less than 30 minutes)- enters the plant on contact
- RAIN-PROOF™ (Mistake Proof)
- RAIN-PROOF™ in two hours (30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes) (for control that won't wash away)
- Roundup [*or insert brand name*] can be used (almost) anywhere weeds and grasses grow, including patios, walkways, and driveways; along fences; in landscaping beds; or around flowers, shrubs and trees
- (Roundup) [*or insert brand name*] Kills the weed you see and the root others leave behind
- Roundup's exclusive (patented) formula (technology) kills to the root so weeds don't come back
- Roundup [*or insert brand name*] kills weeds and grasses in – Patios – Driveways – Sidewalks – Ornamental Gardens and other non-lawn areas
- Satisfaction guaranteed or we will gladly refund purchase price
- Satisfaction guaranteed or your money back with proof of purchase
- (See) results in hours
- (See) results in 24 hours
- Speeds absorption to the root for complete kill
- Spray weeds (Use) in flowerbeds, around trees, shrubs and around fences, and on patios, paths, sidewalks, sidewalk cracks, walkways, driveways, and other areas in your yard
- Starts to kill in hours
- Starts working immediately (in hours)
- Stronger
- Transorb technology speeds Roundup to the root to kill even tough weeds
- Twice as fast
- (Use) For Brush Control
- (Use) For General Weed Control: Use along fences, paths, patios, sidewalks and driveways, around trees, shrubs, ornamental plantings, flowerbeds, and buildings, and in brick and gravel walkways.
- Use for large jobs like garden plot preparation and lawn replacement (renovation)
- (Use) For Lawn Renovation
- Use to trim and edge landscape areas.
- (Use) For Spot Spraying: Use in and around flowerbeds, ornamental trees, shrubs, fences, driveways and walkways
- (Use) For Stumps
- (Use in) Apply with a Big Shot™ Multi-Purpose Sprayer or other tank sprayer, or a (hand held) trigger sprayer
- Use to refill Roundup Ready-To-Use containers
- Use to prepare sites: for large plantings, for planting flowerbeds, fruit trees, ornamentals, vegetables and gardens, and for renovating lawns
- Visible effects are gradual wilting and yellowing advancing to complete browning and

**EPA Reg No. 71995-29**

root destruction.

- Water based formula
- Won't wash off (away)
- Works first time, every time
- Works in hours
- Works overnight
- Works only when absorbed by the foliage of weeds

*[Promotional options]*

- Save up to \$[x] on (your) next purchase
- [X]% Free (More)
- Free weed guide inside
- Free [ ] with this purchase of Roundup concentrate quart
- FREE REFILL
- FREE SAMPLE
- SAMPLE NOT FOR SALE
- Value size



APPENDIX 2 – Packaging Related Claims

NET xx fl oz (qt or gal) (xx mL or L)  
6 fl oz (177 mL)  
6.5 fl oz (192 mL)  
8 fl oz (237 mL)  
13 oz (384 mL)  
16 fl oz (1 pt) (473 mL)  
32 fl oz (1 qt) 946 mL)  
36.8 oz (15% more than 1 quart size)  
40 fl oz (1.18 L)  
53.7 fl oz (0.42 gal) (1.5 L)  
64 fl oz (1/2 gal) (1.89 L)  
128 fl oz (1 gal) (3.79 L)

*[corner flap]*

OPEN

Resealable Label for Directions & Precautions

PULL HERE TO OPEN LABEL

PEEL HERE

PEEL OPEN FOR USE DIRECTIONS AND FURTHER INFORMATION

PRESS TO RESEAL

*[Net contents]* Makes up to 'X' gallons

Makes between 'X' – 'Y' gallons

Mix with water to make 'X' gallons of spray solution

Covers up to 'Z' sq ft

Mix with water to cover up to 'Z' sq ft

$[X = \text{net contents} \div 3]$

$[Y = \text{net contents} \div 6]$

$[Z = X * 300]$

*[Pint]*

Makes up to 5 gallons

Makes between 2½ - 5 gallons

Mix with water to make 5 gallons of spray solution

Covers up to 1,500 sq ft

Mix with water to cover up to 1,500 sq ft

*[Quart]*

Makes up to 10 gallons

Makes between 5 – 10 gallons

**EPA Reg No. 71995-29**

Mix with water to make 10 gallons of spray solution  
Covers up to 3,000 sq ft  
Mix with water to cover up to 3,000 sq ft

*[0.42 Gallon]* Makes up to 18 gallons  
Makes between 9 – 18 gallons  
Mix with water to make 18 gallons of spray solution  
Covers up to 5,400 sq ft  
Mix with water to cover up to 5,400 sq ft

*[Half Gallon]* Makes up to 21 gallons  
Makes between 10 – 21 gallons  
Mix with water to make 21 gallons of spray solution  
Covers up to 6,300 sq ft  
Mix with water to cover up to 6,300 sq ft

*[Gallon]* Makes up to 42 gallons  
Makes between 21 – 42 gallons  
Mix with water to make 42 gallons of spray solution  
Covers up to 12,600 sq ft  
Mix with water to cover up to 12,600 sq ft

New! Larger size, covers up to [ 'Z' ] sq ft

With (the convenient) measuring cup, mixing *[Insert brand name]* (controlling weeds around your home) has never been easier

With (the convenient) measuring cup, controlling weeds all around your home has never been this fast and easy

**EPA Reg No. 71995-29**

**Description of changes for 071995-00029.20040818.pdf**

This label amendment incorporates the following changes:

- Revised Refill section
- Added optional text, When to Apply Section
- Added "with water" and "eyes" to First Aid
- Added container size to Appendix 2



|   |  |                  |  |         |          |  |  |
|---|--|------------------|--|---------|----------|--|--|
| G 71191915 - 1   1   1219   08/23/04  |  |                  |  |         |          |  |  |
| 3. IS A PUBLIC DATA NECESSARY?<br><input type="checkbox"/> YES <input type="checkbox"/> NO                  |  |                  |  |         |          |  |  |
| 4. PETITION NO.   |  |                  |  |         |          |  |  |
| 5. METHOD OF SUPPORT<br><input type="checkbox"/> 1A <input type="checkbox"/> 1B <input type="checkbox"/> 1C |  |                  |  |         |          |  |  |
| 7. PRODUCT MANAGER  |  |                  |  |         |          |  |  |
| 1. DATE FILED<br>9/14/04  |  |                  |  |         |          |  |  |
| 10. DATE PUBLICISED<br>AWP  |  |                  |  |         |          |  |  |
| 11. ACTION TYPE<br>Revise Master Label<br>300   |  |                  |  |         |          |  |  |
| 12. OUTGOING DATE   |  |                  |  |         |          |  |  |
| 13. REVIEW TYPE   |  |                  |  |         |          |  |  |
| REVIEWER CODE (Initials)  |  |                  |  |         |          |  |  |
| SIGNATURE OF REVIEWER   |  |                  |  |         |          |  |  |
| COMMENT CODE  |  |                  |  |         |          |  |  |
| DATE REVIEW COMPLETE  |  |                  |  |         |          |  |  |
| A   | REVIEWABILITY TEAM                               |                  |  |         |          |  |  |
| B   | PRODUCT MANAGER TEAM EFFICACY REVIEW             |                  |  |         |          |  |  |
| C   | PRODUCT MANAGER TEAM HUMAN SAFETY REVIEW         |                  |  |         |          |  |  |
| D   | PRODUCT MANAGER TEAM ENVIRONMENTAL SAFETY REVIEW |                  |  |         |          |  |  |
| E   | PRODUCT MANAGER TEAM REGISTRATION REVIEW         |                  |  |         |          |  |  |
| F   | PRODUCT MANAGER                                  |                  |  | UKW NAC | 09/14/04 |  |  |
| G   | INTERAGENCY REFERRAL                             |                  |  |         |          |  |  |
| H   | COST-BENEFIT REVIEW                              |                  |  |         |          |  |  |
| I   | PUBLIC COMMENTS REVIEW                           |                  |  |         |          |  |  |
| J   | EEB BRANCH INSECTICIDE EFFICACY                  |                  |  |         |          |  |  |
| K   | EEB BRANCH HERBICIDE EFFICACY                    |                  |  |         |          |  |  |
| L   | EEB BRANCH FUNGICIDE EFFICACY                    |                  |  |         |          |  |  |
| M   | EEB BRANCH ROSENTHAL EFFICACY                    |                  |  |         |          |  |  |
| N   | EEB BRANCH DISINFESTANT EFFICACY                 |                  |  |         |          |  |  |
| O   | CHEMISTRY BRANCH RESIDUE CHEMISTRY               |                  |  |         |          |  |  |
| P   | EEB BRANCH ENVIRONMENTAL CHEMISTRY               |                  |  |         |          |  |  |
| Q   | TOXICOLOGY BRANCH HUMAN SAFETY                   |                  |  |         |          |  |  |
| R   | EEB BRANCH ENVIRONMENTAL SAFETY                  |                  |  |         |          |  |  |
| S   |  |                  |  |         |          |  |  |
| T   |  |                  |  |         |          |  |  |
| PRODUCT MANAGER SIGNATURE   |  | TYPE OF RESPONSE |  | CODE    |          |  |  |

MONSANTO



18 August, 2004

**Hand Delivered**

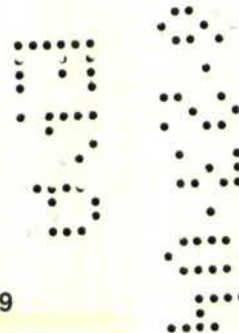
**MONSANTO COMPANY**

1300 I (EYE) STREET, NW  
SUITE 450 EAST  
WASHINGTON, D.C. 20005  
PHONE (202) 383-2866  
FAX (202) 789-1748  
<http://www.monsanto.com>

Document Processing Center (AMEND)  
Office of Pesticide Programs  
U.S. Environmental Protection Agency  
Room 266A, Crystal Mall 2,  
1801 South Bell Street  
Arlington, VA 22202-4501

Attention: Mr. Jim Tompkins (7505C)  
Product Manager (Team 25)

Subject: **Submission of Revised Master Label for EPA Reg. No. 71995-29**



Dear Mr. Tompkins,

Monsanto is herein submitting a revised Master Label for *Roundup Weed & Grass Killer Concentrate Plus* (EPA Reg. No. 71995-29). The revised label is based on the recent label notification, dated July 14, 2004. Changes to the label include:

- Revised Refill section
- Added optional text, When to Apply Section
- Added "with water" and "eyes" to First Aid
- Added container size to Appendix 2

**This submission is classified as part of the Agency's Fast-Track Program therefore no fee is due.**

The following documents are included with this application for amendment:

- Application for Pesticide (form 8570-1)
- Five copies of the revised Master Label (unmarked)
- One copy of the revised Master Label (marked)
- CD-Rom containing this cover letter, required forms and the electronic label (filename: 071995-00029.20040818.pdf)
- Signed Certification with Respect to Label Integrity

Should you require any additional information or have any questions, please contact Dr. Russell Schneider at our Washington office (202)383-2866 or me directly at (314) 694-8785 or by email at [rhonda.m.mannion@monsanto.com](mailto:rhonda.m.mannion@monsanto.com).

Sincerely,

*Rhonda M. Mannion /hs*  
Rhonda M. Mannion  
Registration Manager

cc: V. Walters / EPA  
R. Schneider / DC Office  
J. Lambert/ A2NC  
File copy



8 Apr-2004

Please read instructions on reverse before completing form.

Form Approved. OMB No. 2070-0060



United States  
**Environmental Protection Agency**  
 Washington, DC 20460

☐  
☒  
☐

**Registration**  
**Amendment**  
**Other**

OPP Identifier  
Number**307417****Application for Pesticide – Section I**

|  |  |   |
|--|--|---|
| 1. Company/Product Number Monsanto Company, Lawn & Garden Products; 71995-29   | 2. EPA Product Manager<br>Mr. Jim Tompkins   | 3. Proposed Classification<br><br><input type="checkbox"/> None <input type="checkbox"/> Restricted |
| Company/Product (Name) Monsanto Company, Lawn & Garden Products; Roundup Weed & Grass Killer Concentrate Plus  | PM #<br>25   |   |
| 5. Name and Address of Applicant (Include ZIP Code)<br>Monsanto Company, Lawn & Garden Products<br>1300 I (Eye) St., N.W., Suite 450 East<br>Washington, DC 20005<br><br><input type="checkbox"/> Check if this is a new address | 6. <b>Expedited Review.</b> In accordance with FIFRA Section 3(c)(3)(B)(i), my product is similar or identical in composition and labeling to:<br>EPA Reg. No. _____<br>Product Name _____ |   |

**Section – II**

|  |  |
|--|--|
| <input checked="" type="checkbox"/> Amendment – Explain below.           | <input type="checkbox"/> Final printed labels in response to Agency letter dated |
| <input type="checkbox"/> Resubmission in response to Agency letter dated | <input type="checkbox"/> "Me Too" Application.                                   |
| <input type="checkbox"/> Notification – Explain below.                   | <input type="checkbox"/> Other – Explain below.                                  |

**Explanation:** Use additional page(s) if necessary. (For Section I and Section II.)

Submission of revised Master Label.

**Section – III**

|   |   |   |   |
|---|---|---|---|
| 1. <b>Material This Product Will Be Packaged In:</b>  |   |   |   |
| Child-Resistant Packaging<br><input type="checkbox"/> Yes*<br><input type="checkbox"/> No   | Unit Packaging<br><input type="checkbox"/> Yes<br><input type="checkbox"/> No<br>If "Yes" Unit Packaging wgt. No. per Container | Water Soluble Packaging<br><input type="checkbox"/> Yes<br><input type="checkbox"/> No<br>If "Yes" Package wgt. No. per Container | 2. Type of Container<br><input type="checkbox"/> Metal<br><input type="checkbox"/> Plastic<br><input type="checkbox"/> Glass<br><input type="checkbox"/> Paper<br><input type="checkbox"/> Other<br>(Specify) _____ |
| 3. Location of Net Contents Information<br><input type="checkbox"/> Label <input type="checkbox"/> Container  |   | 4. Size(s) Retail Container   | 5. Location of Label Directions<br><input type="checkbox"/> On Label<br><input type="checkbox"/> On Labeling accompanying product   |
| 6. Manner in Which Label is Affixed to Product<br><input type="checkbox"/> Lithograph<br><input type="checkbox"/> Paper glued<br><input type="checkbox"/> Stenciled |   | <input type="checkbox"/> Other _____  |   |

**Section – IV**

|   |  |   |  |
|---|--|---|--|
| 1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)   |  |   |  |
| Name<br>Dr. Russell Schneider   | Title<br>Director, Regulatory Affairs DC | Telephone No. (Include Area Code)<br>(202) 383-2866 |  |
| <b>Certification</b><br><i>I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.</i> |  |   | 6. Date Application Received<br><br><b>(Stamped)</b> |
| 2. Signature<br><i>Rhonda M. Mannion / ts</i>   |  | 3. Title<br>Registration Manager                    |  |
| 4. Typed Name<br>Rhonda. M. Mannion Tel. (314) 694-8785   |  | 5. Date<br>18 August 2004                           |  |

# Certification with Respect to Label Integrity

Version: 9/11/02

I certify that the information (including, but not limited to, text, tables, and graphics) contained in the electronic file identified below by file name and submitted with this certification is the same information as that on the paper copies of these documents included with this submission.

| PROPOSED LABEL     |                       |                           |
|--------------------|-----------------------|---------------------------|
| EPA Registration # | Date Submitted to EPA | Electronic file name      |
| 071995-00029       | 08/18/2004            | 071995-00029.20040818.pdf |

I certify that the statements that I have made on this form are true, accurate, and complete. I acknowledge that any knowingly false or misleading statements may be punishable by fine or imprisonment or both under applicable law.

Rhonda M. Mannion / ts  
Signature

18 August 2004  
Date

Rhonda M. Mannion  
Name (typed)

Registration Manager  
Title





United States  
**Environmental Protection Agency**  
 Washington, DC 20460

☐ **Registration**  
☐ **Amendment**  
☒ **Other**

OPP Identifier  
 Number

**294199**

### Application for Pesticide – Section I

|  |  |  |
|--|--|--|
| 1. Company/Product Number<br>71995-29  | 2. EPA Product Manager<br>Mr. Jim Tompkins | 3. Proposed Classification<br><br><input type="checkbox"/> None <input type="checkbox"/> Restricted  |
| Company/Product (Name)<br>Roundup Weed & Grass Killer Concentrate Plus   | PM #<br>25                                 |  |
| 5. Name and Address of Applicant (Include ZIP Code)<br>Monsanto Company, Lawn & Garden Products<br>1300 I (Eye) St., N.W., Suite 450 East<br>Washington, DC 20005<br><input type="checkbox"/> Check if this is a new address |  | 6. <b>Expedited Review.</b> In accordance with FIFRA Section 3(c)(3)(B)(i), my product is similar or identical in composition and labeling to:<br>EPA Reg. No. _____<br>Product Name _____ |

### Section – II

|   |  |
|---|--|
| <input type="checkbox"/> Amendment – Explain below.                                       | <input type="checkbox"/> Final printed labels in response to Agency letter dated _____ |
| <input checked="" type="checkbox"/> Resubmission in response to Agency letter dated _____ | <input type="checkbox"/> "Me Too" Application.   |
| <input checked="" type="checkbox"/> Notification – Explain below.                         | <input type="checkbox"/> Other – Explain below.  |

**Explanation:** Use additional page(s) if necessary. (For Section I and Section II.)

Submission of final printed label and notification of new claim.

This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

### Section – III

|   |   |   |  |
|---|---|---|--|
| 1. <b>Material This Product Will Be Packaged In:</b>  |   |   |  |
| Child-Resistant Packaging<br><input type="checkbox"/> Yes*<br><input type="checkbox"/> No   | Unit Packaging<br><input type="checkbox"/> Yes<br><input type="checkbox"/> No<br>If "Yes" Unit Packaging wgt. No. per Container | Water Soluble Packaging<br><input type="checkbox"/> Yes<br><input type="checkbox"/> No<br>If "Yes" Package wgt. No. per Container | 2. Type of Container<br><input type="checkbox"/> Metal<br><input type="checkbox"/> Plastic<br><input type="checkbox"/> Glass<br><input type="checkbox"/> Paper<br><input type="checkbox"/> Other (Specify) _____ |
| 3. Location of Net Contents Information<br><input type="checkbox"/> Label <input type="checkbox"/> Container  |   | 4. Size(s) Retail Container   | 5. Location of Label Directions<br><input type="checkbox"/> On Label<br><input type="checkbox"/> On Labeling accompanying product  |
| 6. Manner in Which Label is Affixed to Product<br><input type="checkbox"/> Lithograph<br><input type="checkbox"/> Paper glued<br><input type="checkbox"/> Stenciled |   | <input type="checkbox"/> Other _____  |  |

### Section – IV

|   |  |   |  |
|---|--|---|--|
| 1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)   |  |   |  |
| Name<br>Dr. Russell Schneider   | Title<br>Director, Regulatory Affairs DC | Telephone No. (Include Area Code)<br>(202) 383-2866 |  |
| 2. Signature<br><i>Rhonda M. Mannion</i>  |  | 3. Title<br>Registration Manager                    |  |
| 4. Typed Name<br>Rhonda. M. Mannion Tel. (314) 694-8785   |  | 5. Date<br>14 July 2004                             |  |
| Certification<br>I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law. |  | 6. Date Application Received<br>(Stamped)<br>       |  |

# Certification with Respect to Label Integrity

Version: 9/11/02

I certify that the information (including, but not limited to, text, tables, and graphics) contained in the electronic file identified below by file name and submitted with this certification is the same information as that on the paper copies of these documents included with this submission.

| PROPOSED LABEL     |                       |                           |
|--------------------|-----------------------|---------------------------|
| EPA Registration # | Date Submitted to EPA | Electronic file name      |
| 71995-29           | 07/14/2004            | 071995-00029.20040714.pdf |

I certify that the statements that I have made on this form are true, accurate, and complete. I acknowledge that any knowingly false or misleading statements may be punishable by fine or imprisonment or both under applicable law.

Rhonda M. Mannion

Signature

14 July 2004

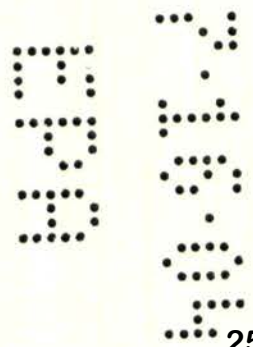
Date

Rhonda M. Mannion

Name (typed)

Registration Manager

Title

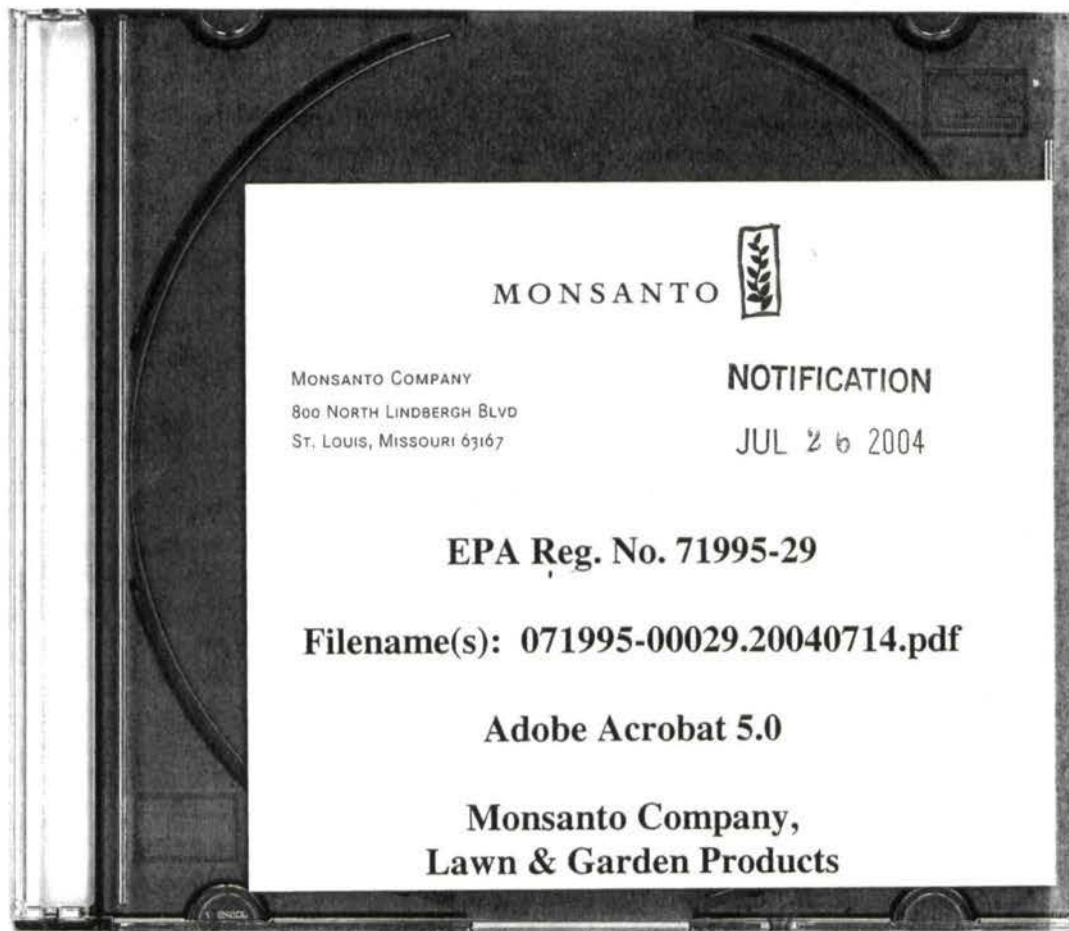




Batch 45  
Box 48

Jacket # 070602  
(071995-00029)

Sent it back  
to OPP



**FASTEST ROUNDUP CONCENTRATE AVAILABLE!**



# Roundup

WEED & GRASS KILLER  
**CONCENTRATE PLUS**

PPN 5008



041502

Active Ingredients:  
Glyphosate, isopropylamine salt ..... 18.00%  
Diquat Dibromide ..... 0.73%  
Other Ingredients ..... 81.27%

**VISIBLE RESULTS IN 24 HOURS!**  
**RAIN-PROOF IN 30 MINUTES**

**KEEP OUT OF  
REACH OF CHILDREN**  
See back panel booklet for  
additional precautionary statements. **CAUTION**  
**NET 32 FL OZ (1 QT)**

File 40939/front label  
Folder: 40939Monsanto\_21208B3-14  
color: black, pms 362, pms 430, pms 485, pms 2945, pan yellow  
bar code: itf, 25%, -58

Created: 08-06-03 cn  
alt: 8-23-03 mm/ 6/30/04 lmk





**IMPORTANT:** Some trees may share the same root system. Adjacent trees having a similar age, height and spacing may signal shared roots system. Injury may occur to non-treated trees when one or more trees sharing common roots are treated.

### For Lawn Replacement

Use Roundup to kill lawn and weeds before planting a new lawn.

- Skip one mowing before spraying.
- Use 6 fl oz (12 Tbs) per gallon of water for each 300 sq ft. Apply evenly over treatment area.
- If soil is dry, water before application and 2 to 3 days after application.
- If green patches remain after 7 days, reapply.
- Wait 7 days after last application to rake, till or replant with seed or sod.

### For Garden Plot Preparation

Use Roundup to kill weeds and grasses before planting flowers, fruits, vegetables, trees or shrubs.

- If soil is dry, water before application and 2 to 3 days after application.
- Use 6 fl oz (12 Tbs) per gallon of water for each 300 sq ft. Apply evenly over treatment area.
- Wait 1 to 3 days after last application before planting garden, see **When To Replant** section for details.

### When To Replant

- All ornamental flowers, trees and shrubs may be planted 1 day after application.
- Lawn grasses, herbs, vegetables (all), and fruits may be planted 3 days after application.

### How It Works

Roundup Concentrate Plus enters plants through foliage and moves systemically to the roots, killing weeds by stopping the production of a substance found in plants. Any product not absorbed by plants will be deactivated after it hits the soil. Weeds usually yellow and wilt within hours with complete kill in 1 to 2 weeks.

**Satisfaction Guaranteed or your money back with proof of purchase.**

**NO ROOT.  
NO WEED.  
NO PROBLEM.®**

3

file: 9782\_book\_(FC & 3) created: 7-06-04 jw  
folder: 9782\_Monsanto\_RU Conc+\_32oz alt:  
colors: black, pms 3425 green  
bar code: ITF var. 25%, -39 mics / UPCA, 80%, -39 mics



**OPEN**  
Resealable Label  
for Directions &  
Precautions

**RAIN-PROOF™** IN 30 MINUTES  
FOR CONTROL THAT WON'T WASH AWAY

### PRODUCT FACTS

**Makes up to 10 Gallons**

Treats up to 3,000 sq ft.

**KILLS WEEDS**



ALL TYPES OF WEEDS & GRASSES

**WHERE TO USE**

- ✓ On patios, walkways, driveways, gravel or mulch beds
- ✓ Around flowers, shrubs or trees
- ✓ Along fences
- ✓ In large areas - For lawn replacement  
- For garden plot preparation\*
- ✓ Other areas of your yard

\*IMPORTANT: While Roundup Concentrate Plus may be used to prepare a vegetable garden for planting, DO NOT USE for spot weed treatment after planting fruits or vegetables.

**AMOUNT TO USE**

**For Best Results -**

6 fl oz (12 Tbs) per gallon of water  
Apply on warm days in bright sunlight



Questions, Comments or Medical Information:  
Call 1-800-246-7219 [www.roundup.com](http://www.roundup.com)



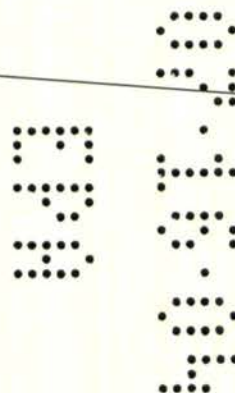
For easy to kill weeds such as seedlings add 3 fl oz (6 Tbs) to 1 gallon of water.

Manufactured for Monsanto Company,  
Lawn & Garden Products, P.O. Box 418  
Marysville, OH 43041  
EPA Reg. No. 71995-29

EPA Est. 239-1A-3<sup>1</sup>, 58996-MQ-1<sup>A</sup>  
Superscript is first letter of lot number  
PPN 5003 Made in USA



04140



**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**MIXING INSTRUCTIONS**

**Tank Sprayer** (plastic, aluminum, fiberglass, plastic-lined steel or stainless steel). **DO NOT MIX, STORE, OR APPLY IN GALVANIZED OR UNLINED STEEL SPRAYER.**

- Add 6 fl oz (12 Tbs) to 1 gallon of water.
- Spot treat or spray evenly over 300 sq ft.

**Hose-End Sprayer**

For large areas consider using the Ortho Dial 'n Spray®.

- Set dial to 6 oz.
- To sprayer jar add 6 fl oz (12 Tbs) for each 300 sq ft. DO NOT add water.
- Spray evenly over measured area.
- After spraying, unused product can be poured back into its original container.

1 Tablespoon (Tbs) = 3 teaspoons (tsp)

1 fl oz = 2 Tbs

For easy to kill weeds such as seedlings add 3 fl oz (6 Tbs) to 1 gallon of water.

Do not apply with a galvanized or unlined steel (except stainless steel) sprayer or through any irrigation system.

To clean sprayer after use, rinse sprayer and all sprayer parts with water 3 times. Spray rinse water on bare soil or gravel. After cleaning, sprayer may be used for other products.

**User Safety Recommendations**

- Clothing and protective equipment exposed to this product should be washed in detergent and hot water. Such items should be kept and washed separate from other laundry.
- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing immediately if product gets inside; then wash thoroughly and put on clean clothing.

1

**How To Apply**

- Spray the weeds or grasses you want to kill until thoroughly wet.
- When spot treating weeds around desirable plants, shield plants from drift with a piece of cardboard or plastic. If desirable plants are accidentally sprayed, rinse off immediately with water.

**Important:** Do not spray plants or grasses you like - they may die too. Not recommended for spot weed control in lawns since Roundup kills lawn grasses.

**Application Restrictions:** Do not apply this product in a way that will contact any person or pet, either directly or through drift. Only the person applying this product may be in the area during application.

**When To Apply**

- Apply when weeds are actively growing.
- For best results, apply during warm, sunny weather (above 60°F) to accelerate systemic movement from foliage to roots.
- Apply when air is calm to prevent drift to desirable plants.
- **RAIN-PROOF:** Rain or watering 30 minutes after application will not wash away effectiveness.

**Additional Tips****To Kill Vines**

- If vines are growing up poles, fences, or tree trunks with mature bark, cut vines to a height of 3 to 4 feet and spray vines thoroughly.
- If vines are climbing shrubs or tree trunks with green bark, cut vines at base and treat as directed for stumps or spray regrowth. If spraying regrowth, shield shrubs and green bark from spray drift with a piece of cardboard or plastic.

**To Kill Stumps**

- Cut living stump close to ground.
- Drive 4 to 5 holes into freshly cut stump.
- Immediately pour undiluted product into holes.

2



## Weed & Grass Killer Concentrate Plus

### STORAGE AND DISPOSAL

**PESTICIDE STORAGE:** Store product in original container in a safe place away from direct sunlight. **DISPOSAL:** If **Empty:** Do not reuse this container. Place in trash or offer for recycling if available. If **Partly Filled:** Call your local solid waste agency or 1-800-CLEANUP for disposal instructions. Never place unused product down any indoor or outdoor drain.

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS & DOMESTIC ANIMALS

**CAUTION:** Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.



People and pets may enter treated areas after spray has dried.

#### FIRST AID

If in  
eyes

- Hold eye open and rinse slowly and gently for 15-20 minutes.
- Remove contact lenses, if present, after first 5 minutes, then continue rinsing.
- Call a poison control center, 1-800-246-7219, or doctor for treatment advice.

#### Emergency Medical Information

• Have the product container or label with you when calling a poison control center or doctor, or going for treatment. • You may contact 1-800-246-7219 for emergency medical treatment information. • This product is identified as **Roundup Weed & Grass Killer Concentrate Plus**, EPA Reg. No. 71995-29.

**ENVIRONMENTAL HAZARDS:** This product is toxic to aquatic invertebrates. Do not apply directly to any body of water. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

**NOTICE:** Buyer assumes all responsibility for safety and use not in accordance with directions.



**Questions, Comments or Medical Information:**  
Call 1-800-246-7219 [www.roundup.com](http://www.roundup.com)

This product is protected by U.S. Patents No. 5,683,958; 5,703,015; 6,063,733; 6,121,199; and No. 6,121,200. Other patents pending. No license granted under any non-U.S. patent(s).

This is an end-use product. Monsanto does not intend and has not registered it for reformulation or repackaging.

Roundup is a trademark of Monsanto Technology LLC.

© 2004 MONSANTO COMPANY

Manufactured for Monsanto Company, Lawn & Garden Products

P.O. Box 418, Marysville, OH 43041

EPA Reg. No. 71995-29

PPN 5003

EPA Est. 239-1A-31, 58996-MO-1A

Superscript is first letter of lot number.

Made in USA

PRESS TO RESEAL

File: 42482\_base\_art

Folder: 42482\_Monsanto\_RU Conc+\_32oz

color: Black

created: 9-16-02 es

alt:



**FASTEST ROUNDUP CONCENTRATE AVAILABLE!**



# Roundup

WEED & GRASS KILLER  
**CONCENTRATE PLUS**

PPN 5008



041502

Active Ingredients:  
Glyphosate, isopropylamine salt ..... 18.00%  
Diquat Dibromide ..... 0.73%  
Other Ingredients ..... 81.27%

**VISIBLE RESULTS IN 24 HOURS!**  
**RAIN-PROOF IN 30 MINUTES**

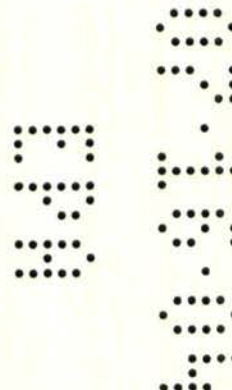
**KEEP OUT OF  
REACH OF CHILDREN**  
See back panel booklet for  
additional precautionary statements. **CAUTION**  
**NET 32 FL OZ (1 QT)**

File 40939/front label  
Folder: 40939Monsanto\_21208B3-14  
color: black, pms 362, pms 430, pms 485, pms 2945, pan yellow  
bar code: itf, 25%, -58

Created: 08-06-03 cn  
alt: 8-23-03 mm/ 6/30/04 lmk

NOTIFICATION

JUL 26 2004



**IMPORTANT:** Some trees may share the same root system. Adjacent trees having a similar age, height and spacing may signal shared roots system. Injury may occur to non-treated trees when one or more trees sharing common roots are treated.

### For Lawn Replacement

Use Roundup to kill lawn and weeds before planting a new lawn.

- Skip one mowing before spraying.
- Use 6 fl oz (12 Tbs) per gallon of water for each 300 sq ft. Apply evenly over treatment area.
- If soil is dry, water before application and 2 to 3 days after application.
- If green patches remain after 7 days, reapply.
- Wait 7 days after last application to rake, till or replant with seed or sod.

### For Garden Plot Preparation

Use Roundup to kill weeds and grasses before planting flowers, fruits, vegetables, trees or shrubs.

- If soil is dry, water before application and 2 to 3 days after application.
- Use 6 fl oz (12 Tbs) per gallon of water for each 300 sq ft. Apply evenly over treatment area.
- Wait 1 to 3 days after last application before planting garden, see **When To Replant** section for details.

### When To Replant

- All ornamental flowers, trees and shrubs may be planted **1 day after** application.
- Lawn grasses, herbs, vegetables (all), and fruits may be planted **3 days after** application.

### How It Works

Roundup Concentrate Plus enters plants through foliage and moves systemically to the roots, killing weeds by stopping the production of a substance found in plants. Any product not absorbed by plants will be deactivated after it hits the soil. Weeds usually yellow and wilt within hours with complete kill in 1 to 2 weeks.

**Satisfaction Guaranteed or your money back with proof of purchase.**

**NO ROOT.  
NO WEED.  
NO PROBLEM.®**

3

file: 9782\_book\_(FC & 3) created: 7-06-04 jw  
folder: 9782\_Monsanto\_RU Conc+\_32oz alt:  
colors: black, pms 3425 green  
bar code: ITF var. 25%, -39 mics / UPCA, 80%, -39 mics

**Roundup** Weed & Grass Killer  
Concentrate Plus

**OPEN**  
Resealable Label  
for Directions &  
Precautions

**RAIN-PROOF** IN 30  
MINUTES  
For Control That Won't Wash Away

### PRODUCT FACTS

**Makes up to 10 Gallons**  
Treats up to 3,000 sq ft.

**KILLS  
WEEDS**



ALL TYPES OF WEEDS & GRASSES

**WHERE  
TO USE**

- ✓ On patios, walkways, driveways, gravel or mulch beds
- ✓ Around flowers, shrubs or trees
- ✓ Along fences
- ✓ In large areas - For lawn replacement  
- For garden plot preparation\*
- ✓ Other areas of your yard

\*IMPORTANT: While Roundup Concentrate Plus may be used to prepare a vegetable garden for planting, DO NOT USE for spot weed treatment after planting fruits or vegetables.

**AMOUNT  
TO USE**

**For Best Results -**  
6 fl oz (12 Tbs) per gallon of water  
Apply on warm days in bright sunlight



Questions, Comments or Medical Information:  
Call 1-800-246-7219

[www.roundup.com](http://www.roundup.com)

For easy to kill weeds such as seedlings add 3 fl oz (6 Tbs) to 1 gallon of water.

Manufactured for Monsanto Company,  
Lawn & Garden Products, P.O. Box 418  
Marysville, OH 43041  
EPA Reg. No. 71995-29

EPA Est. 239-1A-3<sup>1</sup>, 58996-MO-1<sup>A</sup>  
Superscript is first letter of lot number  
PPN 5003 Made in USA



04140



**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**MIXING INSTRUCTIONS**

**Tank Sprayer** (plastic, aluminum, fiberglass, plastic-lined steel or stainless steel). **DO NOT MIX, STORE, OR APPLY IN GALVANIZED OR UNLINED STEEL SPRAYER.**

- Add 6 fl oz (12 Tbs) to 1 gallon of water.
- Spot treat or spray evenly over 300 sq ft.

**Hose-End Sprayer**

For large areas consider using the Ortho Dial 'n Spray®.

- Set dial to 6 oz.
- To sprayer jar add 6 fl oz (12 Tbs) for each 300 sq ft. DO NOT add water.
- Spray evenly over measured area.
- After spraying, unused product can be poured back into its original container.

1 Tablespoon (Tbs) = 3 teaspoons (tsp)

1 fl oz = 2 Tbs

For easy to kill weeds such as seedlings add 3 fl oz (6 Tbs) to 1 gallon of water.

Do not apply with a galvanized or unlined steel (except stainless steel) sprayer or through any irrigation system.

To clean sprayer after use, rinse sprayer and all sprayer parts with water 3 times. Spray rinse water on bare soil or gravel. After cleaning, sprayer may be used for other products.

**User Safety Recommendations**

- Clothing and protective equipment exposed to this product should be washed in detergent and hot water. Such items should be kept and washed separate from other laundry.
- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing immediately if product gets inside; then wash thoroughly and put on clean clothing.

1

**How To Apply**

- Spray the weeds or grasses you want to kill until thoroughly wet.
- When spot treating weeds around desirable plants, shield plants from drift with a piece of cardboard or plastic. If desirable plants are accidentally sprayed, rinse off immediately with water.

**Important:** Do not spray plants or grasses you like - they may die too. Not recommended for spot weed control in lawns since Roundup kills lawn grasses.

**Application Restrictions:** Do not apply this product in a way that will contact any person or pet, either directly or through drift. Only the person applying this product may be in the area during application.

**When To Apply**

- Apply when weeds are actively growing.
- For best results, apply during warm, sunny weather (above 60°F) to accelerate systemic movement from foliage to roots.
- Apply when air is calm to prevent drift to desirable plants.
- RAIN-PROOF: Rain or watering 30 minutes after application will not wash away effectiveness.

**Additional Tips****To Kill Vines**

- If vines are growing up poles, fences, or tree trunks with mature bark, cut vines to a height of 3 to 4 feet and spray vines thoroughly.
- If vines are climbing shrubs or tree trunks with green bark, cut vines at base and treat as directed for stumps or spray regrowth. If spraying regrowth, shield shrubs and green bark from spray drift with a piece of cardboard or plastic.

**To Kill Stumps**

- Cut living stump close to ground.
- Drive 4 to 5 holes into freshly cut stump.
- Immediately pour undiluted product into holes.

2





## Weed & Grass Killer Concentrate Plus

### STORAGE AND DISPOSAL

**PESTICIDE STORAGE:** Store product in original container in a safe place away from direct sunlight. **DISPOSAL:** If Empty: Do not reuse this container. Place in trash or offer for recycling if available. If Partly Filled: Call your local solid waste agency or 1-800-CLEANUP for disposal instructions. Never place unused product down any indoor or outdoor drain.

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS & DOMESTIC ANIMALS

**CAUTION:** Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.



People and pets may enter treated areas after spray has dried.

#### FIRST AID

If in  
eyes

- Hold eye open and rinse slowly and gently for 15-20 minutes.
- Remove contact lenses, if present, after first 5 minutes, then continue rinsing.
- Call a poison control center, 1-800-246-7219, or doctor for treatment advice.

#### Emergency Medical Information

• Have the product container or label with you when calling a poison control center or doctor, or going for treatment. • You may contact 1-800-246-7219 for emergency medical treatment information. • This product is identified as Roundup Weed & Grass Killer Concentrate Plus, EPA Reg. No. 71995-29.

**ENVIRONMENTAL HAZARDS:** This product is toxic to aquatic invertebrates. Do not apply directly to any body of water. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

**NOTICE:** Buyer assumes all responsibility for safety and use not in accordance with directions.



**Questions, Comments or Medical Information:**  
Call 1-800-246-7219 [www.roundup.com](http://www.roundup.com)

This product is protected by U.S. Patents No. 5,683,958; 5,703,015; 6,063,733; 6,121,199; and No. 6,121,200. Other patents pending. No license granted under any non-U.S. patent(s).

This is an end-use product. Monsanto does not intend and has not registered it for reformulation or repackaging.

Roundup is a trademark of Monsanto Technology LLC.

© 2004 MONSANTO COMPANY

Manufactured for Monsanto Company, Lawn & Garden Products

P.O. Box 418, Marysville, OH 43041

EPA Reg. No. 71995-29

PPN 5003

EPA Est. 239-1A-3<sup>1</sup>, 58996-MO-1<sup>A</sup>

Superscript is first letter of lot number.

Made in USA

PRESS TO RESEAL

File: 42482\_base\_art

Folder: 42482\_Monsanto\_RU Conc+\_32oz

color: Black

created: 9-16-02 es

alt:

**EPA Reg No. 71995-29**

*[Editorial Notes: Bracketed text [ ] is for internal use or serves as a 'place holder' for graphics. Parenthetical text ( ) denotes optional wording.]*

*[Refer to APPENDIX 1 for consolidated list of label claims.]*

*[Refer to APPENDIX 2 for packaging related claims/instructions]*

**Roundup Weed & Grass Killer Concentrate Plus**

Alternate Brand Name : MON 78307 Herbicide

**Active Ingredient**

Glyphosate, isopropylamine salt ..... 18.0 %

Diquat dibromide..... 0.73 %

Other Ingredients .....81.27 %

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

See back panel booklet for additional precautionary statements.

(Read precautions and directions on back label.)

NET [xxx]

71995-29

EPA Approved 12 July 2004  
Notification dated 14 July 2004

**NOTIFICATION**

**JUL 26 2004**

|   |  |
|---|--|
| <b>Product Facts</b>  |  |
| Makes up to X gallons <i>[see Appendix 2 for calculation]</i>   |  |
| Treats up to xx sq ft (approx. size of XX tennis courts)  |  |
| <i>[ When calculating coverage, one gallon treats 300 sq ft and a tennis court is 2,808 sq ft.]</i>   |  |
| <b>KILLS WEEDS</b>  | <i>[Illustrate grassy, broadleaf and woody weeds]</i><br>ALL TYPES OF WEEDS & GRASSES  |
| <b>WHERE TO USE</b>   | <ul style="list-style-type: none"> <li>• On patios, walkways, driveways, gravel or mulch beds</li> <li>• Around flowers, shrubs or trees</li> <li>• Along fences</li> <li>• In large areas - For lawn replacement<br/>- For garden plot preparation*</li> <li>• Other areas in (of) your yard</li> </ul> |
| <p>* <b>IMPORTANT:</b> While Roundup Concentrate Plus may be used to prepare a vegetable garden for planting, DO NOT USE for spot weed treatment after planting (any) fruits or vegetables.</p> |  |
| <b>AMOUNT TO USE</b>  | <p><b>For best results</b></p> <ul style="list-style-type: none"> <li>• 6 fl oz (12 Tbs) per gallon of water</li> </ul> <p>Apply on warm days in bright sunlight</p>   |
| <i>[phone icon]</i>   | <p><b>Questions, Comments or Medical Information</b></p> <p>call (insert contact #)      <a href="http://www.roundup.com">www.roundup.com</a></p>  |

*[For products where an anti-theft device has been added]* This bottle contains an anti-theft device, either inside or on the back of the bottle. It does not affect *[Insert Brand Name]* performance *[notification dated 10-feb-04]*.

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.



### MIXING INSTRUCTIONS

*[Optional tank sprayer illustration]*

**Tank Sprayer** (plastic, aluminum, fiberglass, plastic-lined steel or stainless steel.  
(Do not (mix, store or) apply with (in) a galvanized or unlined steel sprayer.)

- (For tough established weeds / For best results,) add 6 fl oz (12 Tbs) to 1 gallon of water.
- *[Optional text]* (For easy to kill weeds such as (small) seedlings, add 3 fl oz (6 Tbs) to 1 gallon of water.
- Spot treat or spray evenly over 300 sq ft

*[Optional DNS illustration]*

**Hose-End Sprayer**

For large areas consider using the Ortho Dial 'n Spray®

- Set dial to 6 oz.
- To sprayer jar add 6 fl oz (12 Tbs) for each 300 sq ft. DO NOT add water.
- Spray evenly over measured area.
- After spraying, unused product can be poured back into its original container.

1 Tablespoon (Tbs) = 3 teaspoons (tsp)

1 fl oz = 2 Tbs

Do not (mix, store or) apply with (in) a galvanized or unlined steel (except stainless steel) sprayer, or through any irrigation system.

To clean sprayer after use, rinse sprayer and all sprayer parts with water 3 times. Spray rinse water on bare soil or gravel. After cleaning, sprayer may be used for other products.

### USER SAFETY RECOMMENDATIONS *[optional illustration]*

- Clothing and protective equipment exposed to this product should be washed in detergent and hot water. Such items should be kept and washed separate from other laundry.
- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing immediately if product gets inside; then wash thoroughly and put on clean clothing.

### HOW TO APPLY *[optional illustration]*

- Spray the weeds or grasses you want to kill until thoroughly wet.



## EPA Reg No. 71995-29

- When spot treating weeds around desirable plants, shield plants from drift with a sheet (piece) of cardboard or plastic. If desirable plants are accidentally sprayed, rinse off immediately with water (or cut off treated area).

**IMPORTANT:** Do not spray plants or grasses you like - they may die too. Not recommended for spot weed control in lawns since Roundup [or insert brand name] kills lawn grasses.

**Application Restrictions:** Do not apply this product in a way that will contact any person or pet, either directly or through drift. Only the person applying this product may be in the area during application.

### WHEN TO APPLY [optional illustration]

- Use anytime weeds and grasses are actively growing. (Apply when weeds are actively growing.)
- For best results, apply during warm, sunny weather (above 60° F) to accelerate systemic movement from foliage to roots.
- Apply when air is calm to prevent drift to desirable plants.
- [Insert brand name] is Rainproof in 2 hours (30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes)
- [Alternate text] (RAIN-PROOF:) Rain or watering 2 hours (30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes) after application will not wash away effectiveness.
- [optional text] Apply when weeds are small and before seeds form. Established (Hard to kill) weeds may require a repeat application.

### ADDITIONAL TIPS [Optional section] [optional illustration]

- **For Lawn Replacement**

Use [Insert brand name] to kill a (an old) (an unwanted) lawn and (its) weeds before planting (a) new lawn (OR prior to laying a patio, sidewalk, or driveway).

[Alternate text] For lawn replacement use [insert brand name] to kill lawn and(&) weeds before planting new lawn.

- Skip one mowing before spraying.
- If soil is dry, water before application and 2 to 3 days after application.
- Wait 7 days after last application to rake, till or replant with seed or sod.

[Alternate text]

- Wait 7 days for weeds and lawn to die. Repeat if necessary.
- Rake or till to prepare area for planting seed or sod.

## EPA Reg No. 71995-29

- (If green patches remain after 7 days, reapply.)

### [Alternate section]

(Great) [Insert brand name] Project: Lawn Renovation

Use [Insert brand name] to kill sections of a weed-infested lawn before reseeding.

- Apply [Insert brand name] to lawn weeds and grasses Wait 7 days after application to rake, till or replant with seed or sod.
- Work (1" of) Scotts Lawn Soil with Starter Fertilizer into existing soil, mixing well.
- For thick, green grass – guaranteed -- spread Scotts Pure Premium (or other Scotts grass seed) and water regularly (daily) to keep area moist (follow package instructions).
- For best results, add a thin layer of Scotts Miracle-Gro Sphagnum Peat Moss (or Scotts Lawn Soil) over the area to help seeded area stay moist throughout germination period.

- **For Flowerbed and Garden (Plot) Preparation**

Use [Insert brand name] to kill weeds, grasses and brush before planting flowers, fruits, vegetables, trees or shrubs.

- If soil is dry, water before application and 2 to 3 days after application.
- Apply evenly over treatment area.
- (Wait 4 to 6 days for product to kill plants then cleanup plant refuse and till soil.)
- Wait (at least) 1 day before planting flowers, trees and shrubs. (Refer to the **When To Replant** section for planting intervals for fruits and vegetables)

### [Alternate section]

- (Great) [Insert brand name] Project: Garden(Plot) Preparation

Use [insert brand name] to kill unwanted weeds and grasses before planting flowers, fruits, vegetables, trees or shrubs.

- Apply [insert brand name] to vegetation in planting bed
- (Wait 4 to 6 days for product to kill plants then cleanup plant refuse and till soil.)
- Wait (at least) 1 day after application before planting flowers, trees, and shrubs. (Refer to the **When To Replant** section for planting intervals for fruits and vegetables)
- For best results, add 3" of Miracle-Gro Garden Soil to your garden. Rototill or spade to a depth of 6", mixing well.
- Feed (new) plants every 2 weeks with Miracle-Gro Plant Food (follow package instructions).

- **To Kill Vines**

- If vines are growing up poles, fences, or tree trunks with mature bark, cut vines to a height of 3 to 4 feet and spray vines thoroughly.
- If vines are climbing shrubs or tree trunks with green bark, cut vines at base and



## EPA Reg No. 71995-29

treat as directed for stumps or spray regrowth. If spraying regrowth, shield shrubs and green bark from spray drift with a sheet (piece) of cardboard or plastic.

- **To Kill Stumps**

- Cut living stump close to ground.
- Drive (drill) 4 to 5 holes into freshly cut stump.
- Immediately pour undiluted product into holes.

**IMPORTANT:** Some trees may share the same root system. Adjacent trees having a similar age, height and spacing may signal shared roots system. Injury may occur to non-treated trees when one or more trees sharing common roots are treated.

- **Kudzu**

For best results, apply in mid to late summer when vines are mature and actively growing.

- **Wild Blackberry**

Spray anytime plants are actively growing. Dead canes should be cut down and removed. Reapplication is often required to kill deep roots.

- **Poison Ivy & Poison Oak**

Contact with these plants anytime of the year can cause an allergic reaction. Spray anytime plants are actively growing, but at least 4 weeks before the first killing frost in the fall. Reapply, if new growth appears. Handle dead plants with rubber gloves. Dispose of plants and rubber gloves in tightly sealed garbage bags.

### WHEN TO REPLANT *[optional illustration]*

- All ornamental flowers, trees and shrubs may be planted **1 day after** application.
- Lawn grasses, herbs, vegetables (all), and fruits may be planted **3 days after** application.

### HOW IT WORKS *[optional illustration]*

Roundup *[or insert brand name]* enters plants through foliage and moves systemically to the roots, killing weeds by stopping the production of a substance found in plants. Any product (Roundup) *[Insert brand name]* not absorbed by plants will be deactivated after it hits the soil. Weeds usually yellow and wilt within hours with complete kill in 1 to 2 weeks.



[Optional section]

**KILLS ALL TYPES OF WEEDS & GRASSES** [optional illustration]

**Weeds (including):** Artichoke thistle, beggarweed, black medic, blue mustard, blue toadflax, brassbuttons, broadleaf plantain, burclover, buttercup, Canada thistle, cattail, chickweed, cocklebur, common groundsel, common mullein, common plantain, common ragweed, creeping beggarweed, creeping-charlie, curly dock, dandelion, dog fennel, evening primrose, false dandelion, fiddleneck, field bindweed (wild morningglory), field pennycress, filaree, Florida pusley, garden spurge, henbit, horsenettle, horseradish, horseweed/ maretail, iceplant, knapweed, knotweed, lambsquarters, lantana, little bittercress, London rocket, mallow, mayweed, milkweed, mouseear chickweed, narrowleaf (buckhorn) plantain, nightshade (silverleaf), oldenlandia, oxalis, Pennsylvania smartweed, pennywort, poison hemlock, prickly lettuce, primrose, prostrate spurge, puncturevine, ragweed, red clover, redroot pigweed, shepherdspurge, smooth catsear, smooth pigweed, sowthistle, spotted spurge, tansy ragwort, tansymustard, teaweed, trumpetcreeper, tumble mustard, Virginia creeper, white clover, whitetop, wild barley, wild mustard, wild oats, wild sweet potato, yellow starthistle, and other broadleaf weeds

**Grasses (including):** Annual bluegrass, annual ryegrass, bahiagrass, barnyardgrass, bentgrass, Bermudagrass, brome grass, Cogongrass, crabgrass, creeping bentgrass, dallisgrass, fall panicum, fescue, field sandbur, foxtail, goosegrass, guineagrass, Johnsongrass, Kentucky bluegrass, kikuyugrass, lovegrass, maidencane, nimblewill, nutsedge, orchardgrass, pampas grass, perennial ryegrass, purple nutsedge, quackgrass, sandspur, smooth brome grass, sprangletop, St. Augustinegrass, tall fescue, Texas panicum, Timothy, torpedograss, vaseygrass, witchgrass, yellow nutgrass, zoysia and other grassy weeds

**Brush (Tough Weeds), Unwanted Trees, Shrubs & Vines (including):**

Alder, ash, (quacking) aspen, blackberry, bluegum eucalyptus, broom (French, Scotch), buckwheat, ceanothus, chamise, cherry, coyote brush, dewberry, elderberry, elm, eucalyptus, giant reed, hawthorn, hazel, honeysuckle, kudzu, locust, madrone, maple, oak, persimmon, poison oak, poison ivy, poplar, raspberry, sage, sagebrush, salmonberry, saltcedar, sassafras, sumac, sweetgum, tan oak, thimbleberry, tree tobacco, wild rose (multiflora) willow and other tough weeds

**STORAGE AND DISPOSAL** [trash can illustration]

**PESTICIDE STORAGE:** Store product in original container in a safe place away from direct sunlight.

**DISPOSAL: If empty:** Do not reuse this container. Place in trash or offer for recycling if



## EPA Reg No. 71995-29

available. **If Partly Filled:** Call your local solid waste agency (or 1-800-CLEANUP) for disposal instructions. Never place unused product down any indoor or outdoor drain.

### HOW TO REFILL ROUNDUP READY-TO-USE CONTAINERS *[Optional section]*

- **24 fl oz Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 2 fl oz of Roundup Concentrate Plus *[or alternate brand name]* then fill with water very slowly to avoid foaming.
- **½ Gallon Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 5 fl oz of Roundup Concentrate Plus *[or alternate brand name]* then fill with water very slowly to avoid foaming.
- **Gallon Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 10 oz of Roundup Concentrate Plus *[or alternate brand name]* then fill with water very slowly to avoid foaming.
- **1.33 Gallon Roundup PNS (II):**  
To empty container add 13 fl oz of Roundup Concentrate Plus *[or alternate brand name]* then fill with water very slowly to avoid foaming.
- **6L Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 16 fl oz of Roundup Concentrate Plus *[or alternate brand name]* then fill with water very slowly to avoid foaming.
- **2 Gallon Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 20 fl oz of Roundup Concentrate Plus *[or alternate brand name]* then fill with water very slowly to avoid foaming.

### PRECAUTIONARY STATEMENTS *[optional illustration]*

*[re-entry icon]* People and pets may enter treated area after spray has dried.

## HAZARDS TO HUMANS & DOMESTIC ANIMALS

### CAUTION:

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.



**EPA Reg No. 71995-29**

| <b>FIRST AID</b>   |   |
|--|---|
| <b>If in eyes</b>  | <ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently for 15-20 minutes.</li><li>• Remove contact lenses, if present, after first 5 minutes, then continue rinsing.</li><li>• Call a poison control center (insert contact telephone #) or doctor for treatment advice.</li></ul> |
| <b>Emergency Medical Information</b>   |   |
| <ul style="list-style-type: none"><li>• Have the product container or label with you when calling a poison control center or doctor, or going for treatment.</li><li>• You may contact (insert contact telephone #) for emergency medical treatment information.</li><li>• This product is identified as <b>[Insert brand name], Reg. No. 71995-29</b></li></ul> |   |

**ENVIRONMENTAL HAZARDS:** This product is toxic to aquatic invertebrates. Do not apply directly to any body of water. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

**NOTICE:** Buyer assumes all responsibility for safety and use not in accordance with directions.

This product is protected by U.S. Patents No. 5,683,958 and No. 5,703,015 and No. 6,063,733 and No. 6,121,199 and No. 6,121,200. Other patents pending. No license granted under any non-U.S. patent(s).

This is an end-use product. Monsanto does not intend and has not registered if for reformulation or repackaging.

[phone icon] **Questions, Comments or Medical Information**  
call insert contact # [www.roundup.com](http://www.roundup.com)

Roundup is a trademark of Monsanto Technology LLC

©[ ] MONSANTO COMPANY

Manufactured for  
Monsanto Company, Lawn & Garden Products  
P.O. Box 418  
Marysville, OH 43041

71995-29

EPA Approved 12 July 2004  
Notification dated 14 July 2004

9

**EPA Reg No. 71995-29**

Form [ ]

EPA Reg. No. 71995-29

EPA Est. 239-IA-3<sup>l</sup>, 58996-MO-1<sup>A</sup>

Superscript is first letter of lot number

Made in USA



**APPENDIX 1 – Consolidated List of Label Claims**  
*[Ordered alphabetically]*

- ASPCA approved *[ASPCA seal of approval to be submitted]*
- Absorbed into both broadleaf and grassy weeds
- Absorbs on contact, starts working immediately
- Also use for large jobs such as lawn renovation and vegetable and flower garden preparation
- Approved for most (many) lawn and garden uses
- Before *[weed graphics]* / After *[weed graphics]*
- Begins absorbing on contact
- Can be used for habitat restoration, controlling exotic vegetation, and for site preparation of wildlife food plots
- Can reseed or sod lawns 7 days after treatment
- Concentrated for extra value
- Concentrated formula
- (Contains) FastAct™ (technology)
- Dead Weeds Guaranteed (or Your Money Back)
- Dead (weeds) in a day
- Deactivates in soil
- Does not have soil activity
- Economical
- Economical concentrate formula
- Easy to apply with an Ortho Dial 'n Spray®, hose-end, tank or (hand held) trigger sprayer
- Even if it rains – Roundup *[or insert brand name]* won't lose its effectiveness
- Exclusive Roundup *[or insert brand name]* formula
- Experience the Roundup Advantage (peel back this panel for detail) (see details inside / underneath this booklet) (see details on back panel)
- FastAct™ (Technology)
- Fast-acting formula
- Fast-acting formula works twice as fast (50% faster)
- Fast-acting formula absorbs to root more quickly
- Fastest Roundup Concentrate Available
- For control that doesn't (won't) wash away
- For general weed control - kills weeds and grasses in 1 to 2 weeks - roots and all
- For weeds that are dead in a (one) day
- Guaranteed same effective results even if it rains within hours
- Guaranteed effective: Kills over 200 types of weeds and grasses, roots and all, with just one application
- Guaranteed (we guarantee it)
- Ideal for killing unwanted weeds and grasses throughout your yard. Use along fences; in cracks of walks, drives and patios; and around flower beds, trees and shrubs



## EPA Reg No. 71995-29

- Improved extra strength formula
- Improved formula, completely kills even the toughest weeds and grasses
- Keeps driveways, walkways, landscaping beds, and flower gardens weed-free all season long
- Kills almost all (annual and perennial) weeds, grasses and other unwanted plants
- Kills existing weeds only, no residual activity in soil
- Kills more weeds in more places.
- Kills over 100 weeds
- Kills (to) the root
- Kills (the toughest weeds and grasses) the root so weeds (they) don't come back
- Kills the root so weeds don't come back
- Kills the roots of (both) broadleaf and grassy weeds
- Kills the weed you see and the root you don't
- Kills unwanted weeds and grasses, roots and all
- Kills weeds in flowerbeds, around trees, shrubs and fences, and on patios, paths, sidewalks, sidewalk cracks, walkways, driveways, and other areas in your yard
- Kills weeds, roots and all
- Lawns and gardens can be reseeded or planted soon after treatment
- Make only what you need
- Multipurpose grass and broadleaf weed control
- NEW!
- Next day (this weekend) results: Begins killing on contact, visible results in 24 hours
- No odor
- No root. No weed. No problem.
- NOW!
- Now a shorter wait for replanting!
- Once it enters the plant, it won't wash off
- One application kills over 200 types of weeds and grasses, roots and all (maximum effectiveness)
- Only Roundup's effectiveness (exclusive formula) won't be washed away by rain or watering 2 hours (30, 45, 60, 90 minutes) after treatment
- Only Roundup's effectiveness (formula) won't be washed away by rain or watering 2 hours ( 1 hour)(30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes) after treatment
- Proven (trusted) performance: Only Roundup [*or insert brand name*] works the first time, every time – and has for 25 years
- Provides maximum control: Kills weeds to the root so they don't ever come back
- Quick kill formula (the toughest)
- Quick-action formula lets you see results 50% faster (two times)
- Ornamental gardens can be reseeded or planted 1 day after treatment
- RainFast in hours (30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes)- enters the plant on contact
- RAIN-PROOF™ (Mistake Proof)



## EPA Reg No. 71995-29

- RAIN-PROOF™ in two hours (30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes) (for control that won't wash away)
- Roundup [or insert brand name] can be used (almost) anywhere weeds and grasses grow, including patios, walkways, and driveways; along fences; in landscaping beds; or around flowers, shrubs and trees
- (Roundup) [or insert brand name] Kills the weed you see and the root others leave behind
- Roundup's exclusive (patented) formula (technology) kills to the root so weeds don't come back
- Roundup [or insert brand name] kills weeds and grasses in – Patios – Driveways – Sidewalks – Ornamental Gardens and other non-lawn areas
- Satisfaction guaranteed or we will gladly refund purchase price
- Satisfaction guaranteed or your money back with proof of purchase
- (See) results in hours
- (See) results in 24 hours
- Speeds absorption to the root for complete kill
- Spray weeds (Use) in flowerbeds, around trees, shrubs and around fences, and on patios, paths, sidewalks, sidewalk cracks, walkways, driveways, and other areas in your yard
- Starts to kill in hours
- Starts working immediately (in hours)
- Stronger
- Transorb technology speeds Roundup to the root to kill even tough weeds
- Twice as fast
- (Use) For Brush Control
- (Use) For General Weed Control: Use along fences, paths, patios, sidewalks and driveways, around trees, shrubs, ornamental plantings, flowerbeds, and buildings, and in brick and gravel walkways.
- Use for large jobs like garden plot preparation and lawn replacement (renovation)
- (Use) For Lawn Renovation
- Use to trim and edge landscape areas.
- (Use) For Spot Spraying: Use in and around flowerbeds, ornamental trees, shrubs, fences, driveways and walkways
- (Use) For Stumps
- (Use in) Apply with a Big Shot™ Multi-Purpose Sprayer or other tank sprayer, or a (hand held) trigger sprayer
- Use to refill Roundup Ready-To-Use containers
- Use to prepare sites: for large plantings, for planting flowerbeds, fruit trees, ornamentals, vegetables and gardens, and for renovating lawns
- Visible effects are gradual wilting and yellowing advancing to complete browning and root destruction.
- Water based formula
- Won't wash off (away)

**EPA Reg No. 71995-29**

- Works first time, every time
- Works in hours
- Works overnight
- Works only when absorbed by the foliage of weeds

*[Promotional options]*

- Save up to \$[x] on (your) next purchase
- [X]% Free (More)
- Free weed guide inside
- Free [ ] with this purchase of Roundup concentrate quart
- FREE REFILL
- FREE SAMPLE
- SAMPLE NOT FOR SALE
- Value size



**APPENDIX 2 – Packaging Related Claims**

NET xx fl oz (qt or gal) (xx mL or L)  
6 fl oz (177 mL)  
6.5 fl oz (192 mL)  
8 fl oz (237 mL)  
13 oz (384 mL)  
16 fl oz (1 pt) (473 mL)  
32 fl oz (1 qt) 946 mL)  
40 fl oz (1.18 L)  
53.7 fl oz (0.42 gal) (1.5 L)  
64 fl oz (1/2 gal) (1.89 L)  
128 fl oz (1 gal) (3.79 L)

*[corner flap]*

OPEN

Resealable Label for Directions & Precautions

PULL HERE TO OPEN LABEL

PEEL HERE

PEEL OPEN FOR USE DIRECTIONS AND FURTHER INFORMATION

PRESS TO RESEAL

*[Net contents]* Makes up to 'X' gallons

Makes between 'X' – 'Y' gallons

Mix with water to make 'X' gallons of spray solution

Covers up to 'Z' sq ft

Mix with water to cover up to 'Z' sq ft

*[ X = net contents ÷ 3 ]*

*[ Y = net contents ÷ 6 ]*

*[ Z = X \* 300 ]*

*[Pint]*

Makes up to 5 gallons

Makes between 2½ - 5 gallons

Mix with water to make 5 gallons of spray solution

Covers up to 1,500 sq ft

Mix with water to cover up to 1,500 sq ft

*[Quart]*

Makes up to 10 gallons

Makes between 5 – 10 gallons

Mix with water to make 10 gallons of spray solution

Covers up to 3,000 sq ft

**EPA Reg No. 71995-29**

Mix with water to cover up to 3,000 sq ft

*[0.42 Gallon]* Makes up to 18 gallons

Makes between 9 – 18 gallons

Mix with water to make 18 gallons of spray solution

Covers up to 5,400 sq ft

Mix with water to cover up to 5,400 sq ft

*[Half Gallon]* Makes up to 21 gallons

Makes between 10 – 21 gallons

Mix with water to make 21 gallons of spray solution

Covers up to 6,300 sq ft

Mix with water to cover up to 6,300 sq ft

*[Gallon]* Makes up to 42 gallons

Makes between 21 – 42 gallons

Mix with water to make 42 gallons of spray solution

Covers up to 12,600 sq ft

Mix with water to cover up to 12,600 sq ft

New! Larger size, covers up to [ 'Z' ] sq ft

With (the convenient) measuring cup, mixing *[Insert brand name]* (controlling weeds around your home) has never been easier

With (the convenient) measuring cup, controlling weeds all around your home has never been this fast and easy





14 July 2004

**Hand Delivered**

Document Processing Center (NOTIF)  
Office of Pesticide Programs  
U.S. Environmental Protection Agency  
Room 266A, Crystal Mall 2,  
1921 Jefferson Davis Highway  
Arlington, VA 22202-4501

Attention: Mr. Jim Tompkins (7505C)  
Product Manager (Team 25)

Subject: **Roundup Weed & Grass Killer Concentrate Plus (Reg. No. 71995-29).  
Submission of Final Printed Label and Notification of Label Changes.**

Dear Mr. Tompkins:

Monsanto is herein submitting a revised final printed label for *Roundup Weed & Grass Killer Concentrate Plus* (Reg. No. 71995-29) based upon the recently approved Master Label dated 12 July 2004. The final printed label is consistent with the approved Master Label with the following exception:

The claim "*Fastest Roundup Concentrate Available*" was added. This claim is supported by the existing Roundup Weed & Grass Killer Concentrate and Super Concentrate product labels (Reg. Nos. 71995-17, 71995-18, 71995-25 and 71995-26), which state "weeds yellow and wilt within 2 to 4 days" compared to Roundup Concentrate Plus which states "weeds usually yellow and wilt within hours" (quoted text can be found in the How It Works section of all labels). The current Master Label also contains several related speed claims.

The following documents are enclosed with this letter:

- Application for Pesticide (form 8570-1)
- CD-Rom containing this cover letter, required forms, and a revised electronic Master Label (filename: 071995-00029.20040714.pdf)
- Certification with Respect to Label Integrity
- Five copies of the revised Master Label incorporating the new claim
- Three copies of the revised Final Printed Label

Should you have any questions, please contact Dr. Russ Schneider at our Washington office (202) 383-2866, or me directly at (314) 694-8785 or by email at [rhonda.m.mannion@monsanto.com](mailto:rhonda.m.mannion@monsanto.com).

Sincerely,

Rhonda M. Mannion  
Registration Manager

cc: V. Walters / EPA  
R. Schneider / DC Office  
J. Lambert / A2NC  
T. Schafer / A2ND  
File copy





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

JUL 12 2004

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

Ms. Rhonda M. Mannion  
Monsanto Company, Lawn & Garden Products  
1300 I Street, Suite 450 East  
Washington, DC 20005

Dear Ms. Mannion:

Subject: Roundup Weed & Grass Killer Concentrate Plus (Revise Master Label)  
EPA Registration No. 71995-29  
Application Dated May 5, 2004

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended is acceptable. Amended labeling will supercede all previously accepted ones. A stamped copy of labeling is enclosed for your records.

Sincerely,

*Vickie K. Walters for*  
James A. Tompkins  
Product Manager 25  
Herbicide Branch  
Registration Division (7505C)

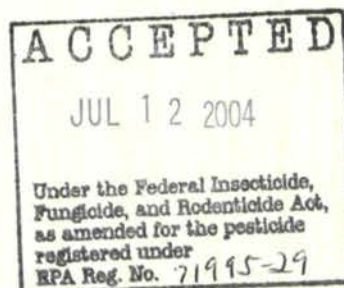
[Editorial Notes: Bracketed text [ ] is for internal use or serves as a 'place holder' for graphics. Parenthetical text ( ) denotes optional wording.]

[Refer to APPENDIX 1 for consolidated list of label claims.]

[Refer to APPENDIX 2 for packaging related claims/instructions]

## Roundup Weed & Grass Killer Concentrate Plus

Alternate Brand Name : MON 78307 Herbicide



**Active Ingredient**

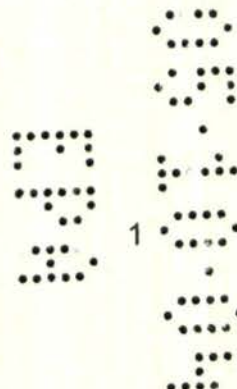
Glyphosate, isopropylamine salt ..... 18.0 %  
Diquat dibromide..... 0.73 %  
Other Ingredients .....81.27 %

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

See back panel booklet for additional precautionary statements.  
(Read precautions and directions on back label.)

NET [xxx]





**Product Facts**

Makes up to X gallons *[see Appendix 2 for calculation]*

Treats up to xx sq ft (approx. size of XX tennis courts)

*[ When calculating coverage, one gallon treats 300 sq ft and a tennis court is 2,808 sq ft.]*

**KILLS** *[[Illustrate grassy, broadleaf and woody weeds]*

**WEEDS** ALL TYPES OF WEEDS & GRASSES

**WHERE  
TO USE**

- On patios, walkways, driveways, gravel or mulch beds
- Around flowers, shrubs or trees
- Along fences
- In large areas - For lawn replacement  
                                    - For garden plot preparation\*
- Other areas in (of) your yard

\* **IMPORTANT:** While Roundup Concentrate Plus may be used to prepare a vegetable garden for planting, DO NOT USE for spot weed treatment after planting (any) fruits or vegetables.

**AMOUNT** For best results

**TO USE** • 6 fl oz (12 Tbs) per gallon of water  
Apply on warm days in bright sunlight

*[phone icon]* **Questions, Comments or Medical Information**  
call (insert contact #) [www.roundup.com](http://www.roundup.com)

*[For products where an anti-theft device has been added]* This bottle contains an anti-theft device, either inside or on the back of the bottle. It does not affect *[Insert Brand Name]* performance *[notification dated 10-feb-04]*.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

### MIXING INSTRUCTIONS

*[Optional tank sprayer illustration]*

**Tank Sprayer** (plastic, aluminum, fiberglass, plastic-lined steel or stainless steel.  
(Do not (mix, store or) apply with (in) a galvanized or unlined steel sprayer.)

- (For tough established weeds / For best results,) add 6 fl oz (12 Tbs) to 1 gallon of water.
- *[Optional text]* (For easy to kill weeds such as (small) seedlings, add 3 fl oz (6 Tbs) to 1 gallon of water.
- Spot treat or spray evenly over 300 sq ft

*[Optional DNS illustration]*

**Hose-End Sprayer**

For large areas consider using the Ortho Dial 'n Spray®

- Set dial to 6 oz.
- To sprayer jar add 6 fl oz (12 Tbs) for each 300 sq ft. DO NOT add water.
- Spray evenly over measured area.
- After spraying, unused product can be poured back into its original container.

1 Tablespoon (Tbs) = 3 teaspoons (tsp)

1 fl oz = 2 Tbs

Do not (mix, store or) apply with (in) a galvanized or unlined steel (except stainless steel) sprayer, or through any irrigation system.

To clean sprayer after use, rinse sprayer and all sprayer parts with water 3 times. Spray rinse water on bare soil or gravel. After cleaning, sprayer may be used for other products.

### USER SAFETY RECOMMENDATIONS *[optional illustration]*

- Clothing and protective equipment exposed to this product should be washed in detergent and hot water. Such items should be kept and washed separate from other laundry.
- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing immediately if product gets inside; then wash thoroughly and put on clean clothing.

### HOW TO APPLY *[optional illustration]*

- Spray the weeds or grasses you want to kill until thoroughly wet.
- When spot treating weeds around desirable plants, shield plants from drift with a sheet (piece) of cardboard or plastic. If desirable plants are accidentally sprayed,



rinse off immediately with water (or cut off treated area).

**IMPORTANT:** Do not spray plants or grasses you like - they may die too. Not recommended for spot weed control in lawns since Roundup [or insert brand name] kills lawn grasses.

**Application Restrictions:** Do not apply this product in a way that will contact any person or pet, either directly or through drift. Only the person applying this product may be in the area during application.

|  |
|--|
| <b>WHEN TO APPLY</b> [optional illustration] |
|--|

- Use anytime weeds and grasses are actively growing. (Apply when weeds are actively growing.)
- For best results, apply during warm, sunny weather (above 60° F) to accelerate systemic movement from foliage to roots.
- Apply when air is calm to prevent drift to desirable plants.
- [Insert brand name] is Rainproof in 2 hours (30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes)
- [Alternate text] (RAIN-PROOF:) Rain or watering 2 hours (30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes) after application will not wash away effectiveness.
- [optional text] Apply when weeds are small and before seeds form. Established (Hard to kill) weeds may require a repeat application.

|   |
|---|
| <b>ADDITIONAL TIPS</b> [Optional section] [optional illustration] |
|---|

- **For Lawn Replacement**

Use [Insert brand name] to kill a (an old) (an unwanted) lawn and (its) weeds before planting (a) new lawn (OR prior to laying a patio, sidewalk, or driveway).

[Alternate text] For lawn replacement use [insert brand name] to kill lawn and(&) weeds before planting new lawn.

- Skip one mowing before spraying.
- If soil is dry, water before application and 2 to 3 days after application.
- Wait 7 days after last application to rake, till or replant with seed or sod.

[Alternate text]

- Wait 7 days for weeds and lawn to die. Repeat if necessary.
- Rake or till to prepare area for planting seed or sod.
- (If green patches remain after 7 days, reapply.)



[Alternate section]

(Great) [Insert brand name] Project: Lawn Renovation

Use [Insert brand name] to kill sections of a weed-infested lawn before reseeding.

- Apply [Insert brand name] to lawn weeds and grasses Wait 7 days after application to rake, till or replant with seed or sod.
- Work (1" of) Scotts Lawn Soil with Starter Fertilizer into existing soil, mixing well.
- For thick, green grass – guaranteed -- spread Scotts Pure Premium (or other Scotts grass seed) and water regularly (daily) to keep area moist (follow package instructions).
- For best results, add a thin layer of Scotts Miracle-Gro Sphagnum Peat Moss (or Scotts Lawn Soil) over the area to help seeded area stay moist throughout germination period.

- **For Flowerbed and Garden (Plot) Preparation**

Use [Insert brand name] to kill weeds, grasses and brush before planting flowers, fruits, vegetables, trees or shrubs.

- If soil is dry, water before application and 2 to 3 days after application.
- Apply evenly over treatment area.
- (Wait 4 to 6 days for product to kill plants then cleanup plant refuse and till soil.)
- Wait (at least) 1 day before planting flowers, trees and shrubs. (Refer to the **When To Replant** section for planting intervals for fruits and vegetables)

[Alternate section]

- (Great) [Insert brand name] Project: Garden(Plot) Preparation

Use [insert brand name] to kill unwanted weeds and grasses before planting flowers, fruits, vegetables, trees or shrubs.

- Apply [insert brand name] to vegetation in planting bed
- (Wait 4 to 6 days for product to kill plants then cleanup plant refuse and till soil.)
- Wait (at least) 1 day after application before planting flowers, trees, and shrubs. (Refer to the **When To Replant** section for planting intervals for fruits and vegetables)
- For best results, add 3" of Miracle-Gro Garden Soil to your garden. Rototill or spade to a depth of 6", mixing well.
- Feed (new) plants every 2 weeks with Miracle-Gro Plant Food (follow package instructions).

- **To Kill Vines**

- If vines are growing up poles, fences, or tree trunks with mature bark, cut vines to a height of 3 to 4 feet and spray vines thoroughly.
- If vines are climbing shrubs or tree trunks with green bark, cut vines at base and treat as directed for stumps or spray regrowth. If spraying regrowth, shield shrubs and green bark from spray drift with a sheet (piece) of cardboard or plastic.



- **To Kill Stumps**

- Cut living stump close to ground.
- Drive (drill) 4 to 5 holes into freshly cut stump.
- Immediately pour undiluted product into holes.

**IMPORTANT:** Some trees may share the same root system. Adjacent trees having a similar age, height and spacing may signal shared roots system. Injury may occur to non-treated trees when one or more trees sharing common roots are treated.

- **Kudzu**

For best results, apply in mid to late summer when vines are mature and actively growing.

- **Wild Blackberry**

Spray anytime plants are actively growing. Dead canes should be cut down and removed. Reapplication is often required to kill deep roots.

- **Poison Ivy & Poison Oak**

Contact with these plants anytime of the year can cause an allergic reaction. Spray anytime plants are actively growing, but at least 4 weeks before the first killing frost in the fall. Reapply, if new growth appears. Handle dead plants with rubber gloves. Dispose of plants and rubber gloves in tightly sealed garbage bags.

|   |
|---|
| <b>WHEN TO REPLANT</b> <i>[optional illustration]</i> |
|---|

- All ornamental flowers, trees and shrubs may be planted **1 day after** application.
- Lawn grasses, herbs, vegetables (all), and fruits may be planted **3 days after** application.

|  |
|--|
| <b>HOW IT WORKS</b> <i>[optional illustration]</i> |
|--|

Roundup [or *insert brand name*] enters plants through foliage and moves systemically to the roots, killing weeds by stopping the production of a substance found in plants. Any product (Roundup) [*Insert brand name*] not absorbed by plants will be deactivated after it hits the soil. Weeds usually yellow and wilt within hours with complete kill in 1 to 2 weeks.

|                           |
|---------------------------|
| <i>[Optional section]</i> |
|---------------------------|

|  |
|--|
| <b>KILLS ALL TYPES OF WEEDS &amp; GRASSES</b> <i>[optional illustration]</i> |
|--|

**Weeds (including):** Artichoke thistle, beggarweed, black medic, blue mustard, blue toadflax, brassbuttons, broadleaf plantain, burclover, buttercup, Canada thistle, cattail, chickweed, cocklebur, common groundsel, common mullein, common plantain, common



ragweed, creeping beggarweed, creeping-charlie, curly dock, dandelion, dog fennel, evening primrose, false dandelion, fiddleneck, field bindweed (wild morningglory), field pennycress, filaree, Florida pusley, garden spurge, henbit, horsenettle, horseradish, horseweed/ maretail, iceplant, knapweed, knotweed, lambsquarters, lantana, little bittercress, London rocket, mallow, mayweed, milkweed, mouseear chickweed, narrowleaf (buckhorn) plantain, nightshade (silverleaf), oldenlandia, oxalis, Pennsylvania smartweed, pennywort, poison hemlock, prickly lettuce, primrose, prostrate spurge, puncturevine, ragweed, red clover, redroot pigweed, shepherdspurse, smooth catsear, smooth pigweed, sowthistle, spotted spurge, tansy ragwort, tansymustard, teaweed, trumpetcreeper, tumble mustard, Virginia creeper, white clover, whitetop, wild barley, wild mustard, wild oats, wild sweet potato, yellow starthistle, and other broadleaf weeds

**Grasses (including):** Annual bluegrass, annual ryegrass, bahiagrass, barnyardgrass, bentgrass, Bermudagrass, brome grass, Cogongrass, crabgrass, creeping bentgrass, dallisgrass, fall panicum, fescue, field sandbur, foxtail, goosegrass, guineagrass, Johnsongrass, Kentucky bluegrass, kikuyugrass, lovegrass, maidencane, nimblewill, nutsedge, orchardgrass, pampas grass, perennial ryegrass, purple nutsedge, quackgrass, sandspur, smooth brome grass, sprangletop, St. Augustinegrass, tall fescue, Texas panicum, Timothy, torpedograss, vaseygrass, witchgrass, yellow nutgrass, zoysia and other grassy weeds

**Brush (Tough Weeds), Unwanted Trees, Shrubs & Vines (including):**

Alder, ash, (quacking) aspen, blackberry, bluegum eucalyptus, broom (French, Scotch), buckwheat, ceanothus, chamise, cherry, coyote brush, dewberry, elderberry, elm, eucalyptus, giant reed, hawthorn, hazel, honeysuckle, kudzu, locust, madrone, maple, oak, persimmon, poison oak, poison ivy, poplar, raspberry, sage, sagebrush, salmonberry, saltcedar, sassafras, sumac, sweetgum, tan oak, thimbleberry, tree tobacco, wild rose (multiflora) willow and other tough weeds

**STORAGE AND DISPOSAL** *[trash can illustration]*

**PESTICIDE STORAGE:** Store product in original container in a safe place away from direct sunlight.

**DISPOSAL:** **If empty:** Do not reuse this container. Place in trash or offer for recycling if available. **If Partly Filled:** Call your local solid waste agency (or 1-800-CLEANUP) for disposal instructions. Never place unused product down any indoor or outdoor drain.

**HOW TO REFILL ROUNDUP READY-TO-USE CONTAINERS** *[Optional section]*

• **24 fl oz Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**

To empty container add 2 fl oz of Roundup Concentrate Plus *[or alternate brand name]* then fill with water very slowly to avoid foaming.



- **½ Gallon Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 5 fl oz of Roundup Concentrate Plus [*or alternate brand name*] then fill with water very slowly to avoid foaming.
- **Gallon Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 10 oz of Roundup Concentrate Plus [*or alternate brand name*] then fill with water very slowly to avoid foaming.
- **1.33 Gallon Roundup PNS (II):**  
To empty container add 13 fl oz of Roundup Concentrate Plus [*or alternate brand name*] then fill with water very slowly to avoid foaming.
- **6L Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 16 fl oz of Roundup Concentrate Plus [*or alternate brand name*] then fill with water very slowly to avoid foaming.
- **2 Gallon Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 20 fl oz of Roundup Concentrate Plus [*or alternate brand name*] then fill with water very slowly to avoid foaming.

**PRECAUTIONARY STATEMENTS** [*optional illustration*]

[*re-entry icon*] People and pets may enter treated area after spray has dried.

**HAZARDS TO HUMANS & DOMESTIC ANIMALS**

**CAUTION:**

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

| FIRST AID  |   |
|--|---|
| <b>If in eyes</b>  | <ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after first 5 minutes, then continue rinsing.</li> <li>• Call a poison control center (insert contact telephone #) or doctor for treatment advice.</li> </ul> |
| Emergency Medical Information  |   |
| <ul style="list-style-type: none"> <li>• Have the product container or label with you when calling a poison control center or doctor, or going for treatment.</li> <li>• You may contact (insert contact telephone #) for emergency medical treatment information.</li> <li>• This product is identified as [<i>Insert brand name</i>], Reg. No. 71995-29</li> </ul> |   |

**ENVIRONMENTAL HAZARDS:** This product is toxic to aquatic invertebrates. Do not apply directly to any body of water. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

**NOTICE:** Buyer assumes all responsibility for safety and use not in accordance with directions.

This product is protected by U.S. Patents No. 5,683,958 and No. 5,703,015 and No. 6,063,733 and No. 6,121,199 and No. 6,121,200. Other patents pending. No license granted under any non-U.S. patent(s).

This is an end-use product. Monsanto does not intend and has not registered if for reformulation or repackaging.

|  |
|--|
| <p>[phone icon] <b>Questions, Comments or Medical Information</b><br/>call insert contact # <a href="http://www.roundup.com">www.roundup.com</a></p> |
|--|

Roundup is a trademark of Monsanto Technology LLC

©[ ] MONSANTO COMPANY

Manufactured for  
Monsanto Company, Lawn & Garden Products  
P.O. Box 418  
Marysville, OH 43041  
Form [ ]  
EPA Reg. No. 71995-29  
EPA Est. 239-IA-3<sup>1</sup>, 58996-MO-1<sup>A</sup>  
Superscript is first letter of lot number  
Made in USA



**APPENDIX 1 – Consolidated List of Label Claims**

*[Ordered alphabetically]*

- ASPCA approved *[ASPCA seal of approval to be submitted]*
- Absorbed into both broadleaf and grassy weeds
- Absorbs on contact, starts working immediately
- Also use for large jobs such as lawn renovation and vegetable and flower garden preparation
- Approved for most (many) lawn and garden uses
- Before *[weed graphics]* / After *[weed graphics]*
- Begins absorbing on contact
- Can be used for habitat restoration, controlling exotic vegetation, and for site preparation of wildlife food plots
- Can reseed or sod lawns 7 days after treatment
- Concentrated for extra value
- Concentrated formula
- (Contains) FastAct™ (technology)
- Dead Weeds Guaranteed (or Your Money Back)
- Dead (weeds) in a day
- Deactivates in soil
- Does not have soil activity
- Economical
- Economical concentrate formula
- Easy to apply with an Ortho Dial 'n Spray®, hose-end, tank or (hand held) trigger sprayer
- Even if it rains – Roundup *[or insert brand name]* won't lose its effectiveness
- Exclusive Roundup *[or insert brand name]* formula
- Experience the Roundup Advantage (peel back this panel for detail) (see details inside / underneath this booklet) (see details on back panel)
- FastAct™ (Technology)
- Fast-acting formula
- Fast-acting formula works twice as fast (50% faster)
- Fast-acting formula absorbs to root more quickly
- For control that doesn't (won't) wash away
- For general weed control - kills weeds and grasses in 1 to 2 weeks - roots and all
- For weeds that are dead in a (one) day
- Guaranteed same effective results even if it rains within hours
- Guaranteed effective: Kills over 200 types of weeds and grasses, roots and all, with just one application
- Guaranteed (we guarantee it)
- Ideal for killing unwanted weeds and grasses throughout your yard. Use along fences; in cracks of walks, drives and patios; and around flower beds, trees and shrubs
- Improved extra strength formula
- Improved formula, completely kills even the toughest weeds and grasses



## EPA Reg No. 71995-29

- Keeps driveways, walkways, landscaping beds, and flower gardens weed-free all season long
- Kills almost all (annual and perennial) weeds, grasses and other unwanted plants
- Kills existing weeds only, no residual activity in soil
- Kills more weeds in more places.
- Kills over 100 weeds
- Kills (to) the root
- Kills (the toughest weeds and grasses) the root so weeds (they) don't come back
- Kills the root so weeds don't come back
- Kills the roots of (both) broadleaf and grassy weeds
- Kills the weed you see and the root you don't
- Kills unwanted weeds and grasses, roots and all
- Kills weeds in flowerbeds, around trees, shrubs and fences, and on patios, paths, sidewalks, sidewalk cracks, walkways, driveways, and other areas in your yard
- Kills weeds, roots and all
- Lawns and gardens can be reseeded or planted soon after treatment
- Make only what you need
- Multipurpose grass and broadleaf weed control
- NEW!
- Next day (this weekend) results: Begins killing on contact, visible results in 24 hours
- No odor
- No root. No weed. No problem.
- NOW!
- Now a shorter wait for replanting!
- Once it enters the plant, it won't wash off
- One application kills over 200 types of weeds and grasses, roots and all (maximum effectiveness)
- Only Roundup's effectiveness (exclusive formula) won't be washed away by rain or watering 2 hours (30, 45, 60, 90 minutes) after treatment
- Only Roundup's effectiveness (formula) won't be washed away by rain or watering 2 hours ( 1 hour)(30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes) after treatment
- Proven (trusted) performance: Only Roundup [*or insert brand name*] works the first time, every time – and has for 25 years
- Provides maximum control: Kills weeds to the root so they don't ever come back
- Quick kill formula (the toughest)
- Quick-action formula lets you see results 50% faster (two times)
- Ornamental gardens can be reseeded or planted 1 day after treatment
- RainFast in hours (30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes)- enters the plant on contact
- RAIN-PROOF™ (Mistake Proof)
- RAIN-PROOF™ in two hours (30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes) (for control that won't wash away)
- Roundup [*or insert brand name*] can be used (almost) anywhere weeds and grasses grow, including patios, walkways, and driveways; along fences; in landscaping beds;



- or around flowers, shrubs and trees
- (Roundup) [or insert brand name] Kills the weed you see and the root others leave behind
- Roundup's exclusive (patented) formula (technology) kills to the root so weeds don't come back
- Roundup [or insert brand name] kills weeds and grasses in – Patios – Driveways – Sidewalks – Ornamental Gardens and other non-lawn areas
- Satisfaction guaranteed or we will gladly refund purchase price
- Satisfaction guaranteed or your money back with proof of purchase
- (See) results in hours
- (See) results in 24 hours
- Speeds absorption to the root for complete kill
- Spray weeds (Use) in flowerbeds, around trees, shrubs and around fences, and on patios, paths, sidewalks, sidewalk cracks, walkways, driveways, and other areas in your yard
- Starts to kill in hours
- Starts working immediately (in hours)
- Stronger
- Transorb technology speeds Roundup to the root to kill even tough weeds
- Twice as fast
- (Use) For Brush Control
- (Use) For General Weed Control: Use along fences, paths, patios, sidewalks and driveways, around trees, shrubs, ornamental plantings, flowerbeds, and buildings, and in brick and gravel walkways.
- Use for large jobs like garden plot preparation and lawn replacement (renovation)
- (Use) For Lawn Renovation
- Use to trim and edge landscape areas.
- (Use) For Spot Spraying: Use in and around flowerbeds, ornamental trees, shrubs, fences, driveways and walkways
- (Use) For Stumps
- (Use in) Apply with a Big Shot™ Multi-Purpose Sprayer or other tank sprayer, or a (hand held) trigger sprayer
- Use to refill Roundup Ready-To-Use containers
- Use to prepare sites: for large plantings, for planting flowerbeds, fruit trees, ornamentals, vegetables and gardens, and for renovating lawns
- Visible effects are gradual wilting and yellowing advancing to complete browning and root destruction.
- Water based formula
- Won't wash off (away)
- Works first time, every time
- Works in hours
- Works overnight
- Works only when absorbed by the foliage of weeds

*[Promotional options]*

- Save up to \$[x] on (your) next purchase
- [X]% Free (More)
- Free weed guide inside
- Free [    ] with this purchase of Roundup concentrate quart
- FREE REFILL
- FREE SAMPLE
- SAMPLE NOT FOR SALE
- Value size



**APPENDIX 2 – Packaging Related Claims**

NET xx fl oz (qt or gal) (xx mL or L)

6 fl oz (177 mL)

6.5 fl oz (192 mL)

8 fl oz (237 mL)

13 oz (384 mL)

16 fl oz (1 pt) (473 mL)

32 fl oz (1 qt) 946 mL)

40 fl oz (1.18 L)

53.7 fl oz (0.42 gal) (1.5 L)

64 fl oz (1/2 gal) (1.89 L)

128 fl oz (1 gal) (3.79 L)

*[corner flap]*

OPEN

Resealable Label for Directions & Precautions

PULL HERE TO OPEN LABEL

PEEL HERE

PEEL OPEN FOR USE DIRECTIONS AND FURTHER INFORMATION

PRESS TO RESEAL

*[Net contents]* Makes up to 'X' gallons

Makes between 'X' – 'Y' gallons

Mix with water to make 'X' gallons of spray solution

Covers up to 'Z' sq ft

Mix with water to cover up to 'Z' sq ft

$[X = \text{net contents} \div 3]$

$[Y = \text{net contents} \div 6]$

$[Z = X * 300]$

*[Pint]*

Makes up to 5 gallons

Makes between 2½ - 5 gallons

Mix with water to make 5 gallons of spray solution

Covers up to 1,500 sq ft

Mix with water to cover up to 1,500 sq ft

*[Quart]*

Makes up to 10 gallons

Makes between 5 – 10 gallons

Mix with water to make 10 gallons of spray solution

Covers up to 3,000 sq ft

Mix with water to cover up to 3,000 sq ft

**EPA Reg No. 71995-29**

[0.42 Gallon] Makes up to 18 gallons  
Makes between 9 – 18 gallons  
Mix with water to make 18 gallons of spray solution  
Covers up to 5,400 sq ft  
Mix with water to cover up to 5,400 sq ft

[Half Gallon] Makes up to 21 gallons  
Makes between 10 – 21 gallons  
Mix with water to make 21 gallons of spray solution  
Covers up to 6,300 sq ft  
Mix with water to cover up to 6,300 sq ft

[Gallon] Makes up to 42 gallons  
Makes between 21 – 42 gallons  
Mix with water to make 42 gallons of spray solution  
Covers up to 12,600 sq ft  
Mix with water to cover up to 12,600 sq ft

New! Larger size, covers up to [ 'Z' ] sq ft

With (the convenient) measuring cup, mixing [*Insert brand name*] (controlling weeds around your home) has never been easier

With (the convenient) measuring cup, controlling weeds all around your home has never been this fast and easy



**Description of Changes for 071995-00029.20040505.pdf**

This master label amendment incorporates the following changes:

- Additional advisory statement regarding use around vegetable gardens
- Additional advisory language for cut stump treatments
- Reduced plant-back intervals in **When To Replant** section
- Revised Storage and Disposal statements which comply with agreed upon text for consumer lawn and garden products
- Additional product claims







05 May 2004

**Hand Delivered**

Document Processing Center (AMEND)  
Office of Pesticide Programs  
U.S. Environmental Protection Agency  
Room 266A, Crystal Mall 2,  
1921 Jefferson Davis Highway  
Arlington, VA 22202-4501

Attention: Mr. James Tompkins (7504C)  
Product Manager (Team 25)

Subject: **Submission of Revised Master Labeling  
EPA Reg. No. 71995-29**

Dear Mr. Tompkins,

Monsanto is herein submitting a revised Master Label for EPA Registration Number 71995-29. The revised Master Label incorporates the following changes:

- Additional advisory statement regarding use around vegetable gardens
- Additional advisory language for cut stump treatments
- Reduced plant-back intervals in **When to Replant** section
- Revised Storage and Disposal statements which comply with agreed upon text for consumer lawn and garden products
- Additional product claims

**This submission is classified as part of the Agency's fast-track program therefore no fee is due.**

The following documents are enclosed with this letter:

- Application for Pesticide (form 8570-1)
- CD-Rom containing this cover letter, required forms, and the electronic label (filename: 071995-00029.20040505.pdf)
- Certification with Respect to Label Integrity
- Five copies of the revised Master Label
- One copy of the revised Master Label highlighting changes to 19 February 2004 Stamped Label

Should you require any additional information or have any questions, please contact Dr. Russ Schneider at our Washington office (202)-383-2866, or me directly at (314) 694-8785 or by email at rhonda.m.mannion@monsanto.com.

Sincerely,

Rhonda M. Mannion  
Registration Manager

cc: V. Walters / EPA  
R. Schneider / DC Office  
File copy

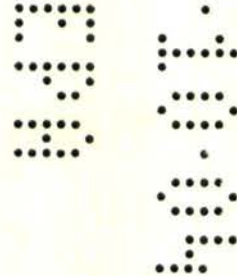
MONSANTO COMPANY

600 13TH STREET, N.W.

SUITE 660

WASHINGTON, D.C. 20005

http://www.monsanto.com





United States  
**Environmental Protection Agency**  
 Washington, DC 20460

☐ Registration  
☒ Amendment  
☐ Other

OPP Identifier Number

294156

### Application for Pesticide – Section I

|   |   |  |
|---|---|--|
| 1. Company/Product Number Monsanto Company, Lawn & Garden Products; EPA Reg. No. 71995-29   | 2. EPA Product Manager<br>James Tompkins  | 3. Proposed Classification<br><input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted |
| 4. Company/Product (Name) Monsanto Company, Lawn & Garden Products<br>Roundup Weed & Grass Killer Concentrate Plus; MON 78307 Herbicide   | PM #<br>25  |  |
| 5. Name and Address of Applicant (Include ZIP Code)<br>Monsanto Company<br>1300 I Street, NW<br>Suite 450 East<br>Washington, DC 20005<br><input type="checkbox"/> Check if this is a new address | 6. <b>Expedited Review.</b> In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to:<br>EPA Reg. No. _____<br>Product Name _____ |  |

### Section – II

|  |  |
|--|--|
| <input checked="" type="checkbox"/> Amendment – Explain below.           | <input type="checkbox"/> Final printed labels in response to Agency letter dated |
| <input type="checkbox"/> Resubmission in response to Agency letter dated | <input type="checkbox"/> "Me Too" Application.                                   |
| <input type="checkbox"/> Notification – Explain below.                   | <input type="checkbox"/> Other – Explain below.                                  |

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Submission of revised Master Label, EPA Reg. No. 71995-29

### Section – III

|  |   |  |  |   |                   |
|--|---|--|--|---|-------------------|
| 1. Material This Product Will Be Packaged In:  |   |  |  | 2. Type of Container  |                   |
| Child-Resistant Packaging<br><input type="checkbox"/> Yes*<br><input type="checkbox"/> No  | Unit Packaging<br><input type="checkbox"/> Yes<br><input type="checkbox"/> No | Water Soluble Packaging<br><input type="checkbox"/> Yes<br><input type="checkbox"/> No | <input type="checkbox"/> Metal<br><input type="checkbox"/> Plastic<br><input type="checkbox"/> Glass<br><input type="checkbox"/> Paper<br><input type="checkbox"/> Other (Specify) |   |                   |
| * <b>Certification must be submitted</b>   |   | If "Yes" Unit Packaging wgt.   | No. per Container  | If "Yes" Package wgt.   | No. per Container |
| 3. Location of Net Contents Information<br><input type="checkbox"/> Label <input type="checkbox"/> Container   |   | 4. Size(s) Retail Container<br>Various   |  | 5. Location of Label Directions<br><input type="checkbox"/> On Label<br><input type="checkbox"/> On Labeling accompanying product |                   |
| 6. Manner in Which Label is Affixed to Product<br><input type="checkbox"/> Lithograph <input type="checkbox"/> Other _____<br><input type="checkbox"/> Paper glued<br><input type="checkbox"/> Stenciled |   |  |  |   |                   |

### Section – IV

|  |  |                                       |  |   |   |
|--|--|---------------------------------------|--|---|---|
| 1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)  |  |                                       |  |   |   |
| Name<br>Russell Schneider, Ph.D.   |  | Title<br>Director, Regulatory Affairs |  | Telephone No. (Include Area Code)<br>(202) 383-2866 |   |
| <b>Certification</b><br>I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law. |  |                                       |  |   | 6. Date Application Received<br>(Stamped)<br> |
| 2. Signature<br>   |  | 3. Title<br>Registration Manager      |  |   |   |
| 4. Typed Name<br>Rhonda M. Mannion 314/ 694-8785   |  | 5. Date<br>05 May 2004                |  |   |   |
|  |  |                                       |  |   |   |



# Certification with Respect to Label Integrity

Version: 9/11/02

I certify that the information (including, but not limited to, text, tables, and graphics) contained in the electronic file identified below by file name and submitted with this certification is the same information as that on the paper copies of these documents included with this submission.

| PROPOSED LABEL     |                       |                           |
|--------------------|-----------------------|---------------------------|
| EPA Registration # | Date Submitted to EPA | Electronic file name      |
| 71995-29           | 05/05/2004            | 071995-00029.20040505.pdf |

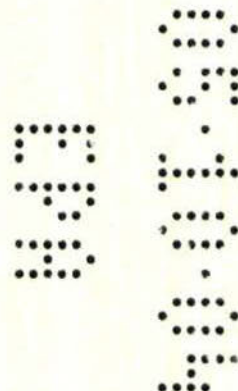
I certify that the statements that I have made on this form are true, accurate, and complete. I acknowledge that any knowingly false or misleading statements may be punishable by fine or imprisonment or both under applicable law.

Rhonda M. Mannion  
Signature

05 May 2004  
Date

Rhonda M. Mannion  
Name (typed)

Registration Manager  
Title



MONSANTO  
imagine



MONSANTO COMPANY  
600 13TH STREET, N.W.  
SUITE 660  
WASHINGTON, D.C. 20005  
<http://www.monsanto.com>

10 February 2004

**Hand Delivered**

Document Processing Center (NOTIF)  
Office of Pesticide Programs  
U.S. Environmental Protection Agency  
Room 266A, Crystal Mall 2,  
1921 Jefferson Davis Highway  
Arlington, VA 22202-4501

*Notification*

Attention: Mr. Jim Tompkins (7505C)  
Product Manager (Team 25)

**Subject: Roundup® Weed & Grass Killer Concentrate Plus (Reg. No. 71995-29).  
Notification of Label Changes.**

Dear Mr. Tompkins:

Monsanto is herein submitting a revised Master Label for *Roundup Weed & Grass Killer Concentrate Plus* (Reg. No. 71995-29). The revised label is identical to the current stamped label dated 24 September 2002 except that the following statement has been added underneath the *Product Facts Box* on page 2:

"THIS BOTTLE CONTAINS AN ANTI-THEFT DEVICE, EITHER INSIDE OR ON THE BACK OF THE BOTTLE. IT DOES NOT AFFECT [Insert Brand Name] PERFORMANCE."

This statement is necessary to support the addition of an anti-theft device to our Roundup Concentrate Plus products; retailers are experiencing some product theft and have asked Monsanto to incorporate an anti-theft device. The same anti-theft device and corresponding statement is currently being used for our current Roundup Super Concentrate products.

The following documents are enclosed with this letter:

- Application for Pesticide (form 8570-1)
- CD-Rom containing this cover letter, required forms, and the electronic label (filename: 071995-00029.20040211.pdf)
- Certification with Respect to Label Integrity
- Five copies of the revised Master Label

Should you require any additional information or have any questions regarding this matter, please contact Dr. Russ Schneider at our Washington office (202) 783-2866, or me directly at (314) 694-8785 or via email at [rhonda.m.mannion@monsanto.com](mailto:rhonda.m.mannion@monsanto.com).

Sincerely,

Rhonda M. Mannion  
Registration Manager

cc: R. Schneider / DC Office  
V. Walters / EPA  
J. Lambert / A2NC  
File copy





United States  
**Environmental Protection Agency**  
 Washington, DC 20460



**Registration**  
**Amendment**  
**Other**

OPP Identifier  
 Number

**296788**

### Application for Pesticide – Section I

|   |  |  |
|---|--|--|
| 1. Company/Product Number<br>71995-29   | 2. EPA Product Manager<br>Mr. Jim Tompkins | 3. Proposed Classification<br><input type="checkbox"/> None <input type="checkbox"/> Restricted  |
| Company/Product (Name)<br>Roundup Weed & Grass Killer Concentrate Plus  | PM #<br>25                                 |  |
| 5. Name and Address of Applicant (Include ZIP Code)<br>Monsanto Company, Lawn & Garden Products<br>600 13 <sup>th</sup> St., N.W., Suite 660<br>Washington, DC 20005<br><input type="checkbox"/> Check if this is a new address |  | 6. <b>Expedited Review.</b> In accordance with FIFRA Section 3(c)(3)(B)(i), my product is similar or identical in composition and labeling to:<br>EPA Reg. No. _____<br>Product Name _____ |

### Section – II

|   |  |
|---|--|
| <input type="checkbox"/> Amendment – Explain below.                                 | <input type="checkbox"/> Final printed labels in response to Agency letter dated |
| <input checked="" type="checkbox"/> Resubmission in response to Agency letter dated | <input type="checkbox"/> "Me Too" Application.                                   |
| <input checked="" type="checkbox"/> Notification – Explain below.                   | <input type="checkbox"/> Other – Explain below.                                  |

**Explanation:** Use additional page(s) if necessary. (For Section I and Section II.)

Submission of revised Master Label incorporating anti-theft device language.

This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

### Section – III

#### 1. Material This Product Will Be Packaged In:

|   |   |   |   |
|---|---|---|---|
| Child-Resistant Packaging<br><input type="checkbox"/> Yes*<br><input type="checkbox"/> No | Unit Packaging<br><input type="checkbox"/> Yes<br><input type="checkbox"/> No<br>If "Yes" Unit Packaging wgt. No. per Container | Water Soluble Packaging<br><input type="checkbox"/> Yes<br><input type="checkbox"/> No<br>If "Yes" Package wgt. No. per Container | 2. Type of Container<br><input type="checkbox"/> Metal<br><input type="checkbox"/> Plastic<br><input type="checkbox"/> Glass<br><input type="checkbox"/> Paper<br><input type="checkbox"/> Other<br>(Specify) _____ |
|---|---|---|---|

|  |                             |   |
|--|-----------------------------|---|
| 3. Location of Net Contents Information<br><input type="checkbox"/> Label <input type="checkbox"/> Container   | 4. Size(s) Retail Container | 5. Location of Label Directions<br><input type="checkbox"/> On Label<br><input type="checkbox"/> On Labeling accompanying product |
| 6. Manner in Which Label is Affixed to Product<br><input type="checkbox"/> Lithograph <input type="checkbox"/> Other _____<br><input type="checkbox"/> Paper glued<br><input type="checkbox"/> Stenciled |                             |   |

### Section – IV

|   |  |  |
|---|--|--|
| 1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)   |  |  |
| Name<br>Dr. Russell Schneider   | Title<br>Director, Regulatory Affairs DC | Telephone No. (Include Area Code)<br>(202) 783-2866  |
| <b>Certification</b><br>I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete.<br>I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law. |  | 6. Date Application Received<br><br><b>(Stamped)</b> |
| 2. Signature<br>  | 3. Title<br>Registration Manager         |  |
| 4. Typed Name<br>Rhonda. M. Mannion Tel. (314) 694-8785   | 5. Date<br>11 February 2004              |  |

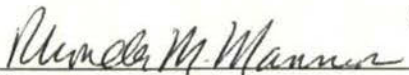
# Certification with Respect to Label Integrity

Version: 9/11/02

I certify that the information (including, but not limited to, text, tables, and graphics) contained in the electronic file identified below by file name and submitted with this certification is the same information as that on the paper copies of these documents included with this submission.

| PROPOSED LABEL     |                       |                           |
|--------------------|-----------------------|---------------------------|
| EPA Registration # | Date Submitted to EPA | Electronic file name      |
| 71995-29           | 02/11/2004            | 071995-00029.20040211.pdf |

I certify that the statements that I have made on this form are true, accurate, and complete. I acknowledge that any knowingly false or misleading statements may be punishable by fine or imprisonment or both under applicable law.



Signature

11 February 2004

Date

Rhonda M. Mannion

Name (typed)

Registration Manager

Title



*[Editorial Notes: Bracketed text [ ] is for internal use or serves as a 'place holder' for graphics. Parenthetical text ( ) denotes optional wording.]*

*[Refer to APPENDIX 1 for consolidated list of label claims.]*

*[Refer to APPENDIX 2 for packaging related claims/instructions]*

## **Roundup Weed & Grass Killer Concentrate Plus**

Alternate Brand Name : MON 78307 Herbicide

### **Active Ingredient**

|                                       |         |
|---------------------------------------|---------|
| Glyphosate, isopropylamine salt ..... | 18.0 %  |
| Diquat dibromide.....                 | 0.73 %  |
| Other Ingredients .....               | 81.27 % |

### **KEEP OUT OF REACH OF CHILDREN**

#### **CAUTION**

See back panel booklet for additional precautionary statements.  
(Read precautions and directions on back label.)

NET [xxx]

**Product Facts**

Treats up to xx sq ft (approx. size of XX tennis courts)

*[ When calculating coverage, one gallon treats 300 sq ft and a tennis court is 2,106 sq ft.]***KILLS** *[Illustrate grassy, broadleaf and woody weeds]***WEEDS** ALL TYPES OF WEEDS & GRASSES

**WHERE TO USE**

- On patios, walkways, driveways, gravel or mulch beds
- Around flowers, shrubs or trees
- Along fences
- Other areas in your yard

**AMOUNT** For best results

**TO USE**

- 6 fl oz (12 Tbs) per gallon of water

Apply on warm days in bright sunlight

*[phone icon]* **Questions, Comments or Medical Information**  
 call (insert contact #)      [www.roundup.com](http://www.roundup.com)

*[For products where an anti-theft device has been added]* This bottle contains an anti-theft device, either inside or on the back of the bottle. It does not affect *[Insert Brand Name]* performance.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**MIXING INSTRUCTIONS***[optional tank sprayer illustration]*

**Tank Sprayer** (plastic, aluminum, fiberglass, plastic-lined steel or stainless steel. **(Do not (mix, store or) apply with (in) a galvanized or unlined steel sprayer.)**

- (For tough established weeds / For best results,) add 6 fl oz (12 Tbs) to 1 gallon of water.
- (For easy to kill weeds such as small seedlings, add 3 fl oz ( 6 Tbs) to 1 gallon of water.)
- (Spot treat)

1 Tablespoon (Tbs) = 3 teaspoons (tsp)

1 fl oz = 2 Tbs

Do not (mix, store or) apply with (in) a galvanized or unlined steel (except stainless steel) sprayer, or through any irrigation system.



To clean sprayer after use, rinse sprayer and all sprayer parts with water 3 times. Spray rinse water on bare soil or gravel. After cleaning, sprayer may be used for other products.

**USER SAFETY RECOMMENDATIONS** *[optional illustration]*

- Clothing and protective equipment exposed to this product should be washed in detergent and hot water. Such items should be kept and washed separate from other laundry.
- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing immediately if product gets inside; then wash thoroughly and put on clean clothing.

**HOW TO APPLY** *[optional illustration]*

- Spray the weeds or grasses you want to kill until thoroughly wet.
- When spot treating weeds around desirable plants, shield plants from drift with a sheet (piece) of cardboard or plastic. If desirable plants are accidentally sprayed, rinse off immediately with water.

**IMPORTANT:** Do not spray plants or grasses you like - they may die too. Not recommended for spot weed control in lawns since Roundup *[or insert brand name]* kills lawn grasses.

**Application Restrictions:** Do not apply this product in a way that will contact any person or pet, either directly or through drift. Only the person applying this product may be in the area during application.

**WHEN TO APPLY** *[optional illustration]*

- Use anytime weeds and grasses are actively growing. (Apply when weeds are actively growing.)
- For best results, apply during warm, sunny weather (above 60° F) to accelerate systemic movement from foliage to roots.
- Apply when air is calm to prevent drift to desirable plants.
- *[insert brand name]* is Rainproof in 2 hours (30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes)
- *[Alternate text]* (RAIN-PROOF:) Rain or watering 2 hours (30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes) after application will not wash away effectiveness.
- (Apply when weeds are small and before seeds form. Established (Hard to kill))

weeds may require a repeat application.)

**ADDITIONAL TIPS** *[optional illustration]*

- **To Kill Vines**

- If vines are growing up poles, fences, or tree trunks with mature bark, cut vines to a height of 3 to 4 feet and spray vines thoroughly.
- If vines are climbing shrubs or tree trunks with green bark, cut vines at base and treat as directed for stumps or spray regrowth. If spraying regrowth, shield shrubs and green bark from spray drift with a sheet (piece) of cardboard or plastic.

- **To Kill Stumps**

- Cut living stump close to ground.
- Drive (drill) 4 to 5 holes into freshly cut stump.
- Immediately pour undiluted product into holes.

- **Kudzu**

For best results, apply in mid to late summer when vines are mature and actively growing.

- **Wild Blackberry**

Spray anytime plants are actively growing. Dead canes should be cut down and removed. Reapplication is often required to kill deep roots.

- **Poison Ivy & Poison Oak**

Contact with these plants anytime of the year can cause an allergic reaction. Spray anytime plants are actively growing, but at least 4 weeks before the first killing frost in the fall. Reapply, if new growth appears. Handle dead plants with rubber gloves. Dispose of plants and rubber gloves in tightly sealed garbage bags.

**WHEN TO REPLANT** *[optional illustration]*

- All ornamental flowers, trees and shrubs may be planted **2 days after** application.
- Lawn grasses may be planted **7 days after** application.

**HOW IT WORKS** *[optional illustration]*

Roundup *[insert brand name]* enters plants through foliage and moves systemically to the roots, killing weeds by stopping the production of a substance found in plants. Any product (Roundup) *[insert brand name]* not absorbed by plants will be deactivated after it hits the soil. Weeds usually yellow and wilt within hours with complete kill in 1 to 2 weeks.



[Optional section]

**KILLS ALL TYPES OF WEEDS & GRASSES** [optional illustration]

**Weeds (including):** Artichoke thistle, beggarweed, black medic, blue mustard, blue toadflax, brassbuttons, broadleaf plantain, burclover, buttercup, Canada thistle, cattail, chickweed, cocklebur, common groundsel, common mullein, common plantain, common ragweed, creeping beggarweed, creeping-charlie, curly dock, dandelion, dog fennel, evening primrose, false dandelion, fiddleneck, field bindweed (wild morningglory), field pennycress, filaree, Florida pusley, garden spurge, henbit, horsenettle, horseradish, horseweed/ marestail, iceplant, knapweed, knotweed, lambsquarters, lantana, little bittercress, London rocket, mallow, mayweed, milkweed, mouseear chickweed, narrowleaf (buckhorn) plantain, nightshade (silverleaf), oldenlandia, oxalis, Pennsylvania smartweed, pennywort, poison hemlock, prickly lettuce, primrose, prostrate spurge, puncturevine, ragweed, red clover, redroot pigweed, shepherds purse, smooth catsear, smooth pigweed, sowthistle, spotted spurge, tansy ragwort, tansymustard, teaweed, trumpet creeper, tumble mustard, Virginia creeper, white clover, whitetop, wild barley, wild mustard, wild oats, wild sweet potato, yellow starthistle, and other broadleaf weeds

**Grasses (including):** Annual bluegrass, annual ryegrass, bahiagrass, barnyardgrass, bentgrass, Bermudagrass, brome grass, Cogongrass, crabgrass, creeping bentgrass, dallisgrass, fall panicum, fescue, field sandbur, foxtail, goosegrass, guineagrass, Johnsongrass, Kentucky bluegrass, kikuyugrass, lovegrass, maidencane, nimblewill, nutsedge, orchardgrass, pampas grass, perennial ryegrass, purple nutsedge, quackgrass, sandspur, smooth brome grass, sprangletop, St. Augustinegrass, tall fescue, Texas panicum, Timothy, torpedograss, vaseygrass, witchgrass, yellow nutgrass, zoysia and other grassy weeds

**Brush (Tough Weeds), Unwanted Trees, Shrubs & Vines (including):**

Alder, ash, (quacking) aspen, blackberry, bluegum eucalyptus, broom (French, Scotch), buckwheat, ceanothus, chamise, cherry, coyote brush, dewberry, elderberry, elm, eucalyptus, giant reed, hawthorn, hazel, honeysuckle, kudzu, locust, madrone, maple, oak, persimmon, poison oak, poison ivy, poplar, raspberry, sage, sagebrush, salmonberry, saltcedar, sassafras, sumac, sweetgum, tan oak, thimbleberry, tree tobacco, wild rose (multiflora) willow and other tough weeds

**STORAGE AND DISPOSAL** [trash can illustration]

**STORAGE:** Store in original container in a safe place away from direct sunlight.

**DISPOSAL: Empty Container:** Do not reuse container. Put in trash. (Recycle where available.) **Partially Full Container:** Call your local waste disposal service or 1-800-CLEANUP. Never pour product down any drain.

### HOW TO REFILL ROUNDUP READY-TO-USE CONTAINERS

- **24 fl oz Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 2 fl oz of Roundup Concentrate Plus [*or alternate brand name*] then fill with water very slowly to avoid foaming.
- **½ Gallon Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 5 fl oz of Roundup Concentrate Plus [*or alternate brand name*] then fill with water very slowly to avoid foaming.
- **Gallon Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 10 oz of Roundup Concentrate Plus [*or alternate brand name*] then fill with water very slowly to avoid foaming.
- **1.33 Gallon Roundup PNS (II):**  
To empty container add 13 fl oz of Roundup Concentrate Plus [*or alternate brand name*] then fill with water very slowly to avoid foaming.
- **6L Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 16 fl oz of Roundup Concentrate Plus [*or alternate brand name*] then fill with water very slowly to avoid foaming.
- **2 Gallon Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 20 fl oz of Roundup Concentrate Plus [*or alternate brand name*] then fill with water very slowly to avoid foaming.

### PRECAUTIONARY STATEMENTS [*optional illustration*]

[*Re-entry icon*] People and pets may enter treated area after spray has dried.

#### HAZARDS TO HUMANS & DOMESTIC ANIMALS

##### CAUTION:

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.



| FIRST AID  |   |
|--|---|
| If in eyes   | <ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently for 15-20 minutes.</li><li>• Remove contact lenses, if present, after first 5 minutes, then continue rinsing.</li><li>• Call a poison control center (insert contact telephone #) or doctor for treatment advice.</li></ul> |
| Emergency Medical Information  |   |
| <ul style="list-style-type: none"><li>• Have the product container or label with you when calling a poison control center or doctor, or going for treatment.</li><li>• You may contact (insert contact telephone #) for emergency medical treatment information.</li><li>• This product is identified as <b>[insert brand name], Reg. No. 71995-29</b></li></ul> |   |

**ENVIRONMENTAL HAZARDS:** This product is toxic to aquatic invertebrates. Do not apply directly to any body of water. Do not contaminate water when disposing of equipment washwaters.

**NOTICE:** Buyer assumes all responsibility for safety and use not in accordance with directions.

This product is protected by U.S. Patents No. 5,683,958 and No. 5,703,015 and No. 6,063,733 and No. 6,121,199 and No. 6,121,200. Other patents pending. No license granted under any non-U.S. patent(s).

This is an end-use product. Monsanto does not intend and has not registered if for reformulation or repackaging.

[phone icon] **Questions, Comments or Medical Information**  
call insert contact # [www.roundup.com](http://www.roundup.com)

Roundup is a trademark of Monsanto Technology LLC

©[ ] MONSANTO COMPANY

Manufactured for  
Monsanto Company, Lawn & Garden Products  
P.O. Box 418  
Marysville, OH 43041-0418  
Form [ ]  
EPA Reg. No. 71995-29

**EPA Reg No. 71995-29**

EPA Est. 239-IA-3<sup>l</sup>, 58996-MO-1<sup>A</sup>  
Superscript is first letter of lot number  
Made in USA

71995-29

EPA Approved 24 Sept 2002  
Notification Dated 11 February 2004

8



**APPENDIX 1 – Consolidated List of Label Claims**  
*[Ordered alphabetically]*

- Absorbed into both broadleaf and grassy weeds
- Absorbs on contact, starts working immediately
- Approved for most (many) lawn and garden uses
- Before *[weed graphics]* / After *[weed graphics]*
- Begins absorbing on contact
- Can be used for habitat restoration, controlling exotic vegetation, and for site preparation of wildlife food plots
- Can reseed or sod lawns 7 days after treatment
- Concentrated for extra value
- Concentrated formula
- (Contains) FastAct™ (technology)
- Dead Weeds Guaranteed (or Your Money Back)
- Dead (weeds) in a day
- Does not have soil activity
- Economical
- Economical concentrate formula
- Easy to apply with a tank or (hand held) trigger sprayer
- Even if it rains – Roundup *[or insert brand name]* won't lose its effectiveness
- Exclusive Roundup *[or insert brand name]* formula
- Experience the Roundup Advantage (peel back this panel for detail) (see details inside / underneath this booklet) (see details on back panel)
- FastAct™ (Technology)
- Fast-acting formula
- Fast-acting formula works twice as fast (50% faster)
- Fast-acting formula absorbs to root more quickly
- For control that doesn't (won't) wash away
- For general weed control - kills weeds and grasses in 1 to 2 weeks - roots and all
- For weeds that are dead in a (one) day
- Guaranteed same effective results even if it rains within hours
- Guaranteed effective: Kills over 200 types of weeds and grasses, roots and all, with just one application
- Guaranteed (we guarantee it)
- Ideal for killing unwanted weeds and grasses throughout your yard. Use along fences; in cracks of walks, drives and patios; and around flower beds, trees and shrubs
- Improved extra strength formula
- Improved formula, completely kills even the toughest weeds and grasses
- Keeps driveways, walkways, landscaping beds, and flower gardens weed-free all season long
- Kills almost all (annual and perennial) weeds, grasses and other unwanted plants
- Kills existing weeds only, no residual activity in soil
- Kills more weeds in more places.



- Kills over 100 weeds
- Kills (to) the root
- Kills (the toughest weeds and grasses) the root so weeds (they) don't come back
- Kills the root so weeds don't come back
- Kills the roots of (both) broadleaf and grassy weeds
- Kills the weed you see and the root you don't
- Kills unwanted weeds and grasses, roots and all
- Kills weeds in flowerbeds, around trees, shrubs and fences, and on patios, paths, sidewalks, sidewalk cracks, walkways, driveways, and other areas in your yard
- Kills weeds, roots and all
- Lawns and gardens can be reseeded or planted soon after treatment
- Make only what you need
- Multipurpose grass and broadleaf weed control
- NEW!
- Next day (this weekend) results: Begins killing on contact, visible results in 24 hours
- No odor
- No root. No weed. No problem.
- NOW!
- Now a shorter wait for replanting!
- Once it enters the plant, it won't wash off
- One application kills over 200 types of weeds and grasses, roots and all (maximum effectiveness)
- Only Roundup's effectiveness (exclusive formula) won't be washed away by rain or watering 2 hours (30, 45, 60, 90 minutes) after treatment
- Only Roundup's effectiveness (formula) won't be washed away by rain or watering 2 hours ( 1 hour)(30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes) after treatment
- Proven (trusted) performance: Only Roundup [or insert brand name] works the first time, every time – and has for 25 years
- Provides maximum control: Kills weeds to the root so they don't ever come back
- Quick kill formula (the toughest)
- Quick-action formula lets you see results 50% faster (two times)
- Ornamental gardens can be reseeded or planted 1 day after treatment
- RainFast in hours (30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes)- enters the plant on contact
- RAIN-PROOF™ (Mistake Proof)
- RAIN-PROOF™ in two hours (30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes) (for control that won't wash away)
- Roundup [or insert brand name] can be used (almost) anywhere weeds and grasses grow, including patios, walkways, and driveways; along fences; in landscaping beds; or around flowers, shrubs and trees
- (Roundup) [or insert brand name] Kills the weed you see and the root others leave behind
- Roundup's exclusive (patented) formula (technology) kills to the root so weeds don't



come back

- Roundup [*or insert brand name*] kills weeds and grasses in – Patios – Driveways – Sidewalks – Ornamental Gardens and other non-lawn areas
- Satisfaction guaranteed or we will gladly refund purchase price
- Satisfaction guaranteed or your money back with proof of purchase
- (See) results in hours
- (See) results in 24 hours
- Speeds absorption to the root for complete kill
- Spray weeds (Use) in flowerbeds, around trees, shrubs and around fences, and on patios, paths, sidewalks, sidewalk cracks, walkways, driveways, and other areas in your yard
- Starts to kill in hours
- Starts working immediately (in hours)
- Stronger
- Transorb technology speeds Roundup to the root to kill even tough weeds
- Twice as fast
- (Use) For Brush Control
- (Use) For General Weed Control: Use along fences, paths, patios, sidewalks and driveways, around trees, shrubs, ornamental plantings, flowerbeds, and buildings, and in brick and gravel walkways.
- Use to trim and edge landscape areas.
- (Use) For Spot Spraying: Use in and around flowerbeds, ornamental trees, shrubs, fences, driveways and walkways
- (Use) For Stumps
- (Use in) Apply with a Big Shot™ Multi-Purpose Sprayer or other tank sprayer, or a (hand held) trigger sprayer
- Visible effects are gradual wilting and yellowing advancing to complete browning and root destruction.
- Water based formula
- Won't wash off (away)
- Works first time, every time
- Works in hours
- Works overnight
- Works only when absorbed by the foliage of weeds

**EPA Reg No. 71995-29**

*[Promotional options]*

- Save up to \$[x] on (your) next purchase
- [X]% Free (More)
- Free weed guide inside
- Free [ ] with this purchase of Roundup concentrate quart
- FREE REFILL
- FREE SAMPLE
- SAMPLE NOT FOR SALE
- Value size



**APPENDIX 2 – Packaging Related Claims**

NET xx fl oz (qt or gal) (xx mL or L)

6 fl oz (177 mL)

6.5 fl oz (192 mL)

8 fl oz (237 mL)

13 oz (384 mL)

16 fl oz (1 pt) (473 mL)

32 fl oz (1 qt) 946 mL)

40 fl oz (1.18 L)

53.7 fl oz (0.42 gal) (1.5 L)

64 fl oz (1/2 gal) (1.89 L)

128 fl oz (1 gal) (3.79 L)

*[corner flap]*

OPEN

Resealable Label for Directions & Precautions

PULL HERE TO OPEN LABEL

PEEL HERE

PEEL OPEN FOR USE DIRECTIONS AND FURTHER INFORMATION

PRESS TO RESEAL

*[Net contents]* Makes up to 'X' gallons

Makes between 'X' – 'Y' gallons

Mix with water to make 'X' gallons of spray solution

Covers up to 'Z' sq ft

Mix with water to cover up to 'Z' sq ft

*[ X = net contents ÷ 3 ]*

*[ Y = net contents ÷ 6 ]*

*[ Z = X \* 300 ]*

*[Pint]*

Makes up to 5 gallons

Makes between 2½ - 5 gallons

Mix with water to make 5 gallons of spray solution

Covers up to 1,500 sq ft

Mix with water to cover up to 1,500 sq ft

*[Quart]*

Makes up to 10 gallons

Makes between 5 – 10 gallons

Mix with water to make 10 gallons of spray solution

Covers up to 3,000 sq ft

Mix with water to cover up to 3,000 sq ft

[0.42 Gallon] Makes up to 18 gallons  
Makes between 9 – 18 gallons  
Mix with water to make 18 gallons of spray solution  
Covers up to 5,400 sq ft  
Mix with water to cover up to 5,400 sq ft

[Half Gallon] Makes up to 21 gallons  
Makes between 10 – 21 gallons  
Mix with water to make 21 gallons of spray solution  
Covers up to 6,300 sq ft  
Mix with water to cover up to 6,300 sq ft

[Gallon] Makes up to 42 gallons  
Makes between 21 – 42 gallons  
Mix with water to make 42 gallons of spray solution  
Covers up to 12,600 sq ft  
Mix with water to cover up to 12,600 sq ft

New! Larger size, covers up to [ 'Z' ] sq ft

With (the convenient) measuring cup, mixing MON 78307 (controlling weeds around your home) has never been easier

With (the convenient) measuring cup, controlling weeds all around your home has never been this fast and easy



**Description of Changes for 071995-00029.20040211.pdf**

This label notification incorporates the following:

- Addition of anti-theft statement



United States  
**Environmental Protection Agency**  
 Washington, DC 20460

☐ Registration  
☐ Amendment  
☒ Other

OPP Identifier  
 Number

**296788**

### Application for Pesticide – Section I

|   |  |   |
|---|--|---|
| 1. Company/Product Number<br>71995-29   | 2. EPA Product Manager<br>Mr. Jim Tompkins | 3. Proposed Classification<br><input type="checkbox"/> None <input type="checkbox"/> Restricted   |
| Company/Product (Name)<br>Roundup Weed & Grass Killer Concentrate Plus  | PM #<br>25                                 |   |
| 5. Name and Address of Applicant (Include ZIP Code)<br>Monsanto Company, Lawn & Garden Products<br>600 13 <sup>th</sup> St., N.W., Suite 660<br>Washington, DC 20005<br><input type="checkbox"/> Check if this is a new address |  | 6. Expedited Review. In accordance with FIFRA Section 3(c)(3)(B)(i), my product is similar or identical in composition and labeling to:<br>EPA Reg. No. _____<br>Product Name _____ |

### Section – II

|  |  |   |
|--|--|---|
| <input type="checkbox"/> Amendment – Explain below.                      | <input type="checkbox"/> Final printed labels in response to Agency letter dated | <b>NOTIFICATION</b><br><br><b>FEB 26 2004</b> |
| <input type="checkbox"/> Resubmission in response to Agency letter dated | <input type="checkbox"/> "Me Too" Application.                                   |   |
| <input checked="" type="checkbox"/> Notification – Explain below.        | <input type="checkbox"/> Other – Explain below.                                  |   |

**Explanation:** Use additional page(s) if necessary. (For Section I and Section II.)

Submission of revised Master Label incorporating anti-theft device language.

This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

### Section – III

|   |   |  |  |  |  |
|---|---|--|--|--|--|
| 1. Material This Product Will Be Packaged In:   |   |  |  | 2. Type of Container   |  |
| Child-Resistant Packaging<br><input type="checkbox"/> Yes*<br><input type="checkbox"/> No   | Unit Packaging<br><input type="checkbox"/> Yes<br><input type="checkbox"/> No | Water Soluble Packaging<br><input type="checkbox"/> Yes<br><input type="checkbox"/> No |  | <input type="checkbox"/> Metal<br><input type="checkbox"/> Plastic<br><input type="checkbox"/> Glass<br><input type="checkbox"/> Paper<br><input type="checkbox"/> Other |  |
| If "Yes" Unit Packaging wgt. No. per Container  |   | If "Yes" Package wgt. No. per Container  |  | (Specify) _____  |  |
| 3. Location of Net Contents Information<br><input type="checkbox"/> Label <input type="checkbox"/> Container  |   | 4. Size(s) Retail Container  |  | 5. Location of Label Directions<br><input type="checkbox"/> On Label<br><input type="checkbox"/> On Labeling accompanying product  |  |
| 6. Manner in Which Label is Affixed to Product<br><input type="checkbox"/> Lithograph<br><input type="checkbox"/> Paper glued<br><input type="checkbox"/> Stenciled |   | <input type="checkbox"/> Other _____   |  |  |  |

### Section – IV

|  |  |   |  |
|--|--|---|--|
| 1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)  |  |   |  |
| Name<br>Dr. Russell Schneider  | Title<br>Director, Regulatory Affairs DC | Telephone No. (Include Area Code)<br>(202) 783-2866 |  |
| <b>Certification</b><br>I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law. |  | 6. Date Application Received<br>(Stamped)           |  |
| 2. Signature<br><i>Rhonda M. Mannion</i>   |  | 3. Title<br>Registration Manager                    |  |
| 4. Typed Name<br>Rhonda. M. Mannion Tel. (314) 694-8785  |  | 5. Date<br>11 February 2004                         |  |



# Certification with Respect to Label Integrity

Version: 9/11/02

I certify that the information (including, but not limited to, text, tables, and graphics) contained in the electronic file identified below by file name and submitted with this certification is the same information as that on the paper copies of these documents included with this submission.

| PROPOSED LABEL     |                       |                           |
|--------------------|-----------------------|---------------------------|
| EPA Registration # | Date Submitted to EPA | Electronic file name      |
| 71995-29           | 02/11/2004            | 071995-00029.20040211.pdf |

I certify that the statements that I have made on this form are true, accurate, and complete. I acknowledge that any knowingly false or misleading statements may be punishable by fine or imprisonment or both under applicable law.

*Rhonda M. Mannion*

Signature

11 February 2004

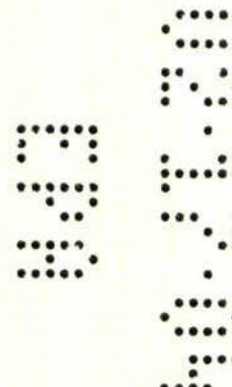
Date

Rhonda M. Mannion

Name (typed)

Registration Manager

Title



[Editorial Notes: Bracketed text [ ] is for internal use or serves as a 'place holder' for graphics. Parenthetical text ( ) denotes optional wording.]

[Refer to APPENDIX 1 for consolidated list of label claims.]

[Refer to APPENDIX 2 for packaging related claims/instructions]

## Roundup Weed & Grass Killer Concentrate Plus

Alternate Brand Name : MON 78307 Herbicide

### Active Ingredient

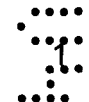
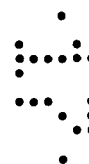
Glyphosate, isopropylamine salt ..... 18.0 %  
Diquat dibromide..... 0.73 %  
Other Ingredients .....81.27 %

### KEEP OUT OF REACH OF CHILDREN

#### CAUTION

See back panel booklet for additional precautionary statements.  
(Read precautions and directions on back label.)

NET [xxx]





**Product Facts**

Treats up to xx sq ft (approx. size of XX tennis courts)

*[ When calculating coverage, one gallon treats 300 sq ft and a tennis court is 2,106 sq ft.]***KILLS WEEDS** *[Illustrate grassy, broadleaf and woody weeds]*

ALL TYPES OF WEEDS &amp; GRASSES

**WHERE TO USE**

- On patios, walkways, driveways, gravel or mulch beds
- Around flowers, shrubs or trees
- Along fences
- Other areas in your yard

**AMOUNT TO USE** **For best results**

- 6 fl oz (12 Tbs) per gallon of water

Apply on warm days in bright sunlight

*[phone icon]* **Questions, Comments or Medical Information**  
**call** (insert contact #) [www.roundup.com](http://www.roundup.com)

*[For products where an anti-theft device has been added]* This bottle contains an anti-theft device, either inside or on the back of the bottle. It does not affect *[Insert Brand Name]* performance.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**MIXING INSTRUCTIONS***[optional tank sprayer illustration]*

**Tank Sprayer** (plastic, aluminum, fiberglass, plastic-lined steel or stainless steel. **(Do not (mix, store or) apply with (in) a galvanized or unlined steel sprayer.)**

- (For tough established weeds / For best results,) add 6 fl oz (12 Tbs) to 1 gallon of water.
- (For easy to kill weeds such as small seedlings, add 3 fl oz ( 6 Tbs) to 1 gallon of water.)
- (Spot treat)

1 Tablespoon (Tbs) = 3 teaspoons (tsp)

1 fl oz = 2 Tbs

Do not (mix, store or) apply with (in) a galvanized or unlined steel (except stainless steel) sprayer, or through any irrigation system.

To clean sprayer after use, rinse sprayer and all sprayer parts with water 3 times. Spray rinse water on bare soil or gravel. After cleaning, sprayer may be used for other products.

**USER SAFETY RECOMMENDATIONS** *[optional illustration]*

- Clothing and protective equipment exposed to this product should be washed in detergent and hot water. Such items should be kept and washed separate from other laundry.
- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing immediately if product gets inside; then wash thoroughly and put on clean clothing.

**HOW TO APPLY** *[optional illustration]*

- Spray the weeds or grasses you want to kill until thoroughly wet.
- When spot treating weeds around desirable plants, shield plants from drift with a sheet (piece) of cardboard or plastic. If desirable plants are accidentally sprayed, rinse off immediately with water.

**IMPORTANT:** Do not spray plants or grasses you like - they may die too. Not recommended for spot weed control in lawns since Roundup *[or insert brand name]* kills lawn grasses.

**Application Restrictions:** Do not apply this product in a way that will contact any person or pet, either directly or through drift. Only the person applying this product may be in the area during application.

**WHEN TO APPLY** *[optional illustration]*

- Use anytime weeds and grasses are actively growing. (Apply when weeds are actively growing.)
- For best results, apply during warm, sunny weather (above 60° F) to accelerate systemic movement from foliage to roots.
- Apply when air is calm to prevent drift to desirable plants.
- *[insert brand name]* is Rainproof in 2 hours (30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes)
- *[Alternate text]* (RAIN-PROOF:) Rain or watering 2 hours (30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes) after application will not wash away effectiveness.
- (Apply when weeds are small and before seeds form. Established (Hard to kill)



weeds may require a repeat application.)

**ADDITIONAL TIPS** *[optional illustration]*

- **To Kill Vines**

- If vines are growing up poles, fences, or tree trunks with mature bark, cut vines to a height of 3 to 4 feet and spray vines thoroughly.
- If vines are climbing shrubs or tree trunks with green bark, cut vines at base and treat as directed for stumps or spray regrowth. If spraying regrowth, shield shrubs and green bark from spray drift with a sheet (piece) of cardboard or plastic.

- **To Kill Stumps**

- Cut living stump close to ground.
- Drive (drill) 4 to 5 holes into freshly cut stump.
- Immediately pour undiluted product into holes.

- **Kudzu**

For best results, apply in mid to late summer when vines are mature and actively growing.

- **Wild Blackberry**

Spray anytime plants are actively growing. Dead canes should be cut down and removed. Reapplication is often required to kill deep roots.

- **Poison Ivy & Poison Oak**

Contact with these plants anytime of the year can cause an allergic reaction. Spray anytime plants are actively growing, but at least 4 weeks before the first killing frost in the fall. Reapply, if new growth appears. Handle dead plants with rubber gloves. Dispose of plants and rubber gloves in tightly sealed garbage bags.

**WHEN TO REPLANT** *[optional illustration]*

- All ornamental flowers, trees and shrubs may be planted **2 days after** application.
- Lawn grasses may be planted **7 days after** application.

**HOW IT WORKS** *[optional illustration]*

Roundup *[insert brand name]* enters plants through foliage and moves systemically to the roots, killing weeds by stopping the production of a substance found in plants. Any product (Roundup) *[insert brand name]* not absorbed by plants will be deactivated after it hits the soil. Weeds usually yellow and wilt within hours with complete kill in 1 to 2 weeks.



[Optional section]

**KILLS ALL TYPES OF WEEDS & GRASSES** [optional illustration]

**Weeds (including):** Artichoke thistle, beggarweed, black medic, blue mustard, blue toadflax, brassbuttons, broadleaf plantain, burclover, buttercup, Canada thistle, cattail, chickweed, cocklebur, common groundsel, common mullein, common plantain, common ragweed, creeping beggarweed, creeping-charlie, curly dock, dandelion, dog fennel, evening primrose, false dandelion, fiddleneck, field bindweed (wild morningglory), field pennycress, filaree, Florida pusley, garden spurge, henbit, horsenettle, horseradish, horseweed/ marestalk, iceplant, knapweed, knotweed, lambsquarters, lantana, little bittercress, London rocket, mallow, mayweed, milkweed, mouseear chickweed, narrowleaf (buckhorn) plantain, nightshade (silverleaf), oldenlandia, oxalis, Pennsylvania smartweed, pennywort, poison hemlock, prickly lettuce, primrose, prostrate spurge, puncturevine, ragweed, red clover, redroot pigweed, shepherdspurse, smooth catsear, smooth pigweed, sowthistle, spotted spurge, tansy ragwort, tansymustard, teaweed, trumpetcreeper, tumble mustard, Virginia creeper, white clover, whitetop, wild barley, wild mustard, wild oats, wild sweet potato, yellow starthistle, and other broadleaf weeds

**Grasses (including):** Annual bluegrass, annual ryegrass, bahiagrass, barnyardgrass, bentgrass, Bermudagrass, brome grass, Cogongrass, crabgrass, creeping bentgrass, dallisgrass, fall panicum, fescue, field sandbur, foxtail, goosegrass, guineagrass, Johnsongrass, Kentucky bluegrass, kikuyugrass, lovegrass, maidencane, nimblewill, nutsedge, orchardgrass, pampas grass, perennial ryegrass, purple nutsedge, quackgrass, sandspur, smooth brome grass, sprangletop, St. Augustinegrass, tall fescue, Texas panicum, Timothy, torpedograss, vaseygrass, witchgrass, yellow nutgrass, zoysia and other grassy weeds

**Brush (Tough Weeds), Unwanted Trees, Shrubs & Vines (including):**

Alder, ash, (quacking) aspen, blackberry, bluegum eucalyptus, broom (French, Scotch), buckwheat, ceanothus, chamise, cherry, coyote brush, dewberry, elderberry, elm, eucalyptus, giant reed, hawthorn, hazel, honeysuckle, kudzu, locust, madrone, maple, oak, persimmon, poison oak, poison ivy, poplar, raspberry, sage, sagebrush, salmonberry, saltcedar, sassafras, sumac, sweetgum, tan oak, thimbleberry, tree tobacco, wild rose (multiflora) willow and other tough weeds

**STORAGE AND DISPOSAL** [trash can illustration]

**STORAGE:** Store in original container in a safe place away from direct sunlight.

**DISPOSAL: Empty Container:** Do not reuse container. Put in trash. (Recycle where available.) **Partially Full Container:** Call your local waste disposal service or 1-800-CLEANUP. Never pour product down any drain.



#### HOW TO REFILL ROUNDUP READY-TO-USE CONTAINERS

- **24 fl oz Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 2 fl oz of Roundup Concentrate Plus [*or alternate brand name*] then fill with water very slowly to avoid foaming.
- **½ Gallon Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 5 fl oz of Roundup Concentrate Plus [*or alternate brand name*] then fill with water very slowly to avoid foaming.
- **Gallon Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 10 oz of Roundup Concentrate Plus [*or alternate brand name*] then fill with water very slowly to avoid foaming.
- **1.33 Gallon Roundup PNS (II):**  
To empty container add 13 fl oz of Roundup Concentrate Plus [*or alternate brand name*] then fill with water very slowly to avoid foaming.
- **6L Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 16 fl oz of Roundup Concentrate Plus [*or alternate brand name*] then fill with water very slowly to avoid foaming.
- **2 Gallon Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 20 fl oz of Roundup Concentrate Plus [*or alternate brand name*] then fill with water very slowly to avoid foaming.

#### PRECAUTIONARY STATEMENTS [*optional illustration*]

[*Re-entry icon*] People and pets may enter treated area after spray has dried.

#### HAZARDS TO HUMANS & DOMESTIC ANIMALS

##### CAUTION:

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

| FIRST AID  |   |
|--|---|
| If in eyes   | <ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently for 15-20 minutes.</li><li>• Remove contact lenses, if present, after first 5 minutes, then continue rinsing.</li><li>• Call a poison control center (insert contact telephone #) or doctor for treatment advice.</li></ul> |
| Emergency Medical Information  |   |
| <ul style="list-style-type: none"><li>• Have the product container or label with you when calling a poison control center or doctor, or going for treatment.</li><li>• You may contact (insert contact telephone #) for emergency medical treatment information.</li><li>• This product is identified as <b>[insert brand name]</b>, Reg. No. 71995-29</li></ul> |   |

**ENVIRONMENTAL HAZARDS:** This product is toxic to aquatic invertebrates. Do not apply directly to any body of water. Do not contaminate water when disposing of equipment washwaters.

**NOTICE:** Buyer assumes all responsibility for safety and use not in accordance with directions.

This product is protected by U.S. Patents No. 5,683,958 and No. 5,703,015 and No. 6,063,733 and No. 6,121,199 and No. 6,121,200. Other patents pending. No license granted under any non-U.S. patent(s).

This is an end-use product. Monsanto does not intend and has not registered it for reformulation or repackaging.

[phone icon] **Questions, Comments or Medical Information**  
call insert contact #      [www.roundup.com](http://www.roundup.com)

Roundup is a trademark of Monsanto Technology LLC

©[ ] MONSANTO COMPANY

Manufactured for  
Monsanto Company, Lawn & Garden Products  
P.O. Box 418  
Marysville, OH 43041-0418  
Form [ ]  
EPA Reg. No. 71995-29



**EPA Reg No. 71995-29**

EPA Est. 239-IA-3<sup>I</sup>, 58996-MO-1<sup>A</sup>  
Superscript is first letter of lot number  
Made in USA

**APPENDIX 1 – Consolidated List of Label Claims**

*[Ordered alphabetically]*

- Absorbed into both broadleaf and grassy weeds
- Absorbs on contact, starts working immediately
- Approved for most (many) lawn and garden uses
- Before *[weed graphics]* / After *[weed graphics]*
- Begins absorbing on contact
- Can be used for habitat restoration, controlling exotic vegetation, and for site preparation of wildlife food plots
- Can reseed or sod lawns 7 days after treatment
- Concentrated for extra value
- Concentrated formula
- (Contains) FastAct™ (technology)
- Dead Weeds Guaranteed (or Your Money Back)
- Dead (weeds) in a day
- Does not have soil activity
- Economical
- Economical concentrate formula
- Easy to apply with a tank or (hand held) trigger sprayer
- Even if it rains – Roundup *[or insert brand name]* won't lose its effectiveness
- Exclusive Roundup *[or insert brand name]* formula
- Experience the Roundup Advantage (peel back this panel for detail) (see details inside / underneath this booklet) (see details on back panel)
- FastAct™ (Technology)
- Fast-acting formula
- Fast-acting formula works twice as fast (50% faster)
- Fast-acting formula absorbs to root more quickly
- For control that doesn't (won't) wash away
- For general weed control - kills weeds and grasses in 1 to 2 weeks - roots and all
- For weeds that are dead in a (one) day
- Guaranteed same effective results even if it rains within hours
- Guaranteed effective: Kills over 200 types of weeds and grasses, roots and all, with just one application
- Guaranteed (we guarantee it)
- Ideal for killing unwanted weeds and grasses throughout your yard. Use along fences; in cracks of walks, drives and patios; and around flower beds, trees and shrubs
- Improved extra strength formula
- Improved formula, completely kills even the toughest weeds and grasses
- Keeps driveways, walkways, landscaping beds, and flower gardens weed-free all season long
- Kills almost all (annual and perennial) weeds, grasses and other unwanted plants
- Kills existing weeds only, no residual activity in soil
- Kills more weeds in more places.



- Kills over 100 weeds
- Kills (to) the root
- Kills (the toughest weeds and grasses) the root so weeds (they) don't come back
- Kills the root so weeds don't come back
- Kills the roots of (both) broadleaf and grassy weeds
- Kills the weed you see and the root you don't
- Kills unwanted weeds and grasses, roots and all
- Kills weeds in flowerbeds, around trees, shrubs and fences, and on patios, paths, sidewalks, sidewalk cracks, walkways, driveways, and other areas in your yard
- Kills weeds, roots and all
- Lawns and gardens can be reseeded or planted soon after treatment
- Make only what you need
- Multipurpose grass and broadleaf weed control
- NEW!
- Next day (this weekend) results: Begins killing on contact, visible results in 24 hours
- No odor
- No root. No weed. No problem.
- NOW!
- Now a shorter wait for replanting!
- Once it enters the plant, it won't wash off
- One application kills over 200 types of weeds and grasses, roots and all (maximum effectiveness)
- Only Roundup's effectiveness (exclusive formula) won't be washed away by rain or watering 2 hours (30, 45, 60, 90 minutes) after treatment
- Only Roundup's effectiveness (formula) won't be washed away by rain or watering 2 hours ( 1 hour)(30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes) after treatment
- Proven (trusted) performance: Only Roundup [*or insert brand name*] works the first time, every time – and has for 25 years
- Provides maximum control: Kills weeds to the root so they don't ever come back
- Quick kill formula (the toughest)
- Quick-action formula lets you see results 50% faster (two times)
- Ornamental gardens can be reseeded or planted 1 day after treatment
- RainFast in hours (30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes)- enters the plant on contact
- RAIN-PROOF™ (Mistake Proof)
- RAIN-PROOF™ in two hours (30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes) (for control that won't wash away)
- Roundup [*or insert brand name*] can be used (almost) anywhere weeds and grasses grow, including patios, walkways, and driveways; along fences; in landscaping beds; or around flowers, shrubs and trees
- (Roundup) [*or insert brand name*] Kills the weed you see and the root others leave behind
- Roundup's exclusive (patented) formula (technology) kills to the root so weeds don't

come back

- Roundup [*or insert brand name*] kills weeds and grasses in – Patios – Driveways – Sidewalks – Ornamental Gardens and other non-lawn areas
- Satisfaction guaranteed or we will gladly refund purchase price
- Satisfaction guaranteed or your money back with proof of purchase
- (See) results in hours
- (See) results in 24 hours
- Speeds absorption to the root for complete kill
- Spray weeds (Use) in flowerbeds, around trees, shrubs and around fences, and on patios, paths, sidewalks, sidewalk cracks, walkways, driveways, and other areas in your yard
- Starts to kill in hours
- Starts working immediately (in hours)
- Stronger
- Transorb technology speeds Roundup to the root to kill even tough weeds
- Twice as fast
- (Use) For Brush Control
- (Use) For General Weed Control: Use along fences, paths, patios, sidewalks and driveways, around trees, shrubs, ornamental plantings, flowerbeds, and buildings, and in brick and gravel walkways.
- Use to trim and edge landscape areas.
- (Use) For Spot Spraying: Use in and around flowerbeds, ornamental trees, shrubs, fences, driveways and walkways
- (Use) For Stumps
- (Use in) Apply with a Big Shot™ Multi-Purpose Sprayer or other tank sprayer, or a (hand held) trigger sprayer
- Visible effects are gradual wilting and yellowing advancing to complete browning and root destruction.
- Water based formula
- Won't wash off (away)
- Works first time, every time
- Works in hours
- Works overnight
- Works only when absorbed by the foliage of weeds



**EPA Reg No. 71995-29**

*[Promotional options]*

- Save up to \$[x] on (your) next purchase
- [X]% Free (More)
- Free weed guide inside
- Free [ ] with this purchase of Roundup concentrate quart
- FREE REFILL
- FREE SAMPLE
- SAMPLE NOT FOR SALE
- Value size

APPENDIX 2 – Packaging Related Claims

NET xx fl oz (qt or gal) (xx mL or L)  
6 fl oz (177 mL)  
6.5 fl oz (192 mL)  
8 fl oz (237 mL)  
13 oz (384 mL)  
16 fl oz (1 pt) (473 mL)  
32 fl oz (1 qt) 946 mL)  
40 fl oz (1.18 L)  
53.7 fl oz (0.42 gal) (1.5 L)  
64 fl oz (1/2 gal) (1.89 L)  
128 fl oz (1 gal) (3.79 L)

[corner flap]

OPEN

Resealable Label for Directions & Precautions

PULL HERE TO OPEN LABEL

PEEL HERE

PEEL OPEN FOR USE DIRECTIONS AND FURTHER INFORMATION

PRESS TO RESEAL

[Net contents] Makes up to 'X' gallons

Makes between 'X' – 'Y' gallons

Mix with water to make 'X' gallons of spray solution

Covers up to 'Z' sq ft

Mix with water to cover up to 'Z' sq ft

[  $X = \text{net contents} \div 3$  ]

[  $Y = \text{net contents} \div 6$  ]

[  $Z = X * 300$  ]

[Pint]

Makes up to 5 gallons

Makes between 2½ - 5 gallons

Mix with water to make 5 gallons of spray solution

Covers up to 1,500 sq ft

Mix with water to cover up to 1,500 sq ft

[Quart]

Makes up to 10 gallons

Makes between 5 – 10 gallons

Mix with water to make 10 gallons of spray solution

Covers up to 3,000 sq ft

Mix with water to cover up to 3,000 sq ft



[0.42 Gallon] Makes up to 18 gallons  
Makes between 9 – 18 gallons  
Mix with water to make 18 gallons of spray solution  
Covers up to 5,400 sq ft  
Mix with water to cover up to 5,400 sq ft

[Half Gallon] Makes up to 21 gallons  
Makes between 10 – 21 gallons  
Mix with water to make 21 gallons of spray solution  
Covers up to 6,300 sq ft  
Mix with water to cover up to 6,300 sq ft

[Gallon] Makes up to 42 gallons  
Makes between 21 – 42 gallons  
Mix with water to make 42 gallons of spray solution  
Covers up to 12,600 sq ft  
Mix with water to cover up to 12,600 sq ft

New! Larger size, covers up to [ 'Z' ] sq ft

With (the convenient) measuring cup, mixing MON 78307 (controlling weeds around your home) has never been easier

With (the convenient) measuring cup, controlling weeds all around your home has never been this fast and easy

**Description of Changes for 071995-00029.20040211.pdf**

This label notification incorporates the following:

- Addition of anti-theft statement





MONSANTO COMPANY  
600 13TH STREET, N.W.  
SUITE 660  
WASHINGTON, D.C. 20005  
<http://www.monsanto.com>

10 February 2004

**Hand Delivered**

Document Processing Center (NOTIF)  
Office of Pesticide Programs  
U.S. Environmental Protection Agency  
Room 266A, Crystal Mall 2,  
1921 Jefferson Davis Highway  
Arlington, VA 22202-4501

Attention: Mr. Jim Tompkins (7505C)  
Product Manager (Team 25)

**Subject: Roundup® Weed & Grass Killer Concentrate Plus (Reg. No. 71995-29).  
Notification of Label Changes.**

Dear Mr. Tompkins:

Monsanto is herein submitting a revised Master Label for *Roundup Weed & Grass Killer Concentrate Plus* (Reg. No. 71995-29). The revised label is identical to the current stamped label dated 24 September 2002 except that the following statement has been added underneath the *Product Facts Box* on page 2:

"THIS BOTTLE CONTAINS AN ANTI-THEFT DEVICE, EITHER INSIDE OR ON THE BACK OF THE BOTTLE. IT DOES NOT AFFECT *[Insert Brand Name]* PERFORMANCE."

This statement is necessary to support the addition of an anti-theft device to our Roundup Concentrate Plus products; retailers are experiencing some product theft and have asked Monsanto to incorporate an anti-theft device. The same anti-theft device and corresponding statement is currently being used for our current Roundup Super Concentrate products.

The following documents are enclosed with this letter:

- Application for Pesticide (form 8570-1)
- CD-Rom containing this cover letter, required forms, and the electronic label (filename: 071995-00029.20040211.pdf)
- Certification with Respect to Label Integrity
- Five copies of the revised Master Label

Should you require any additional information or have any questions regarding this matter, please contact Dr. Russ Schneider at our Washington office (202) 783-2866, or me directly at (314) 604-8785 or via email at [rhonda.m.mannion@monsanto.com](mailto:rhonda.m.mannion@monsanto.com).

Sincerely,

Rhonda M. Mannion  
Registration Manager

cc: R. Schneider / DC Office  
V. Walters / EPA  
J. Lambert / A2NC  
File copy



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

Ms. Rhonda M. Mannion  
Monsanto Company  
600 13<sup>th</sup> Street, NW suite 660  
Washington, DC 20005

Dear Ms. Mannion:

Subject: Roundup Weed & Grass Killer Concentrate Plus (Add Lawn Renovation)  
EPA Registration No. 71995-29  
Application Dated March 21, 2003

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act as amended is acceptable provided you make the following change before you release the product for shipment.

-Under Storage and Disposal, revise "Storage" to read "Pesticide Storage", revise "Disposal" to read "Pesticide Disposal" and add the subheading "Container Disposal".--

Submit two (2) copies of your final printed labeling before you release the product for shipment. Amended labeling supercedes all previously accepted ones. A stamped copy of labeling is enclosed for your records.

Sincerely,

*James A. Tompkins for*  
James A. Tompkins  
Product Manager 25  
Herbicide Branch  
Registration Division (7505C)



[Editorial Notes: Bracketed text [ ] is for internal use or serves as a 'place holder' for graphics. Parenthetical text ( ) denotes optional wording.]

[Refer to APPENDIX 1 for consolidated list of label claims.]

[Refer to APPENDIX 2 for packaging related claims/instructions]

## Roundup Weed & Grass Killer Concentrate Plus

Alternate Brand Name : MON 78307 Herbicide

### Active Ingredient

Glyphosate, isopropylamine salt ..... 18.0 %  
Diquat dibromide..... 0.73 %  
Other Ingredients .....81.27 %

**ACCEPTED**  
with **COMMENTS**  
In EPA Letter Dated:  
FEB 19 2004

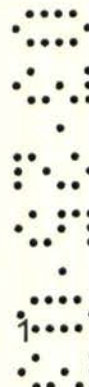
Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
as amended, for the pesticide  
registered under EPA Reg. No.  
71995-29

**KEEP OUT OF REACH OF CHILDREN**

### CAUTION

See back panel booklet for additional precautionary statements.  
(Read precautions and directions on back label.)

NET [xxx]



**Product Facts**

Treats up to xx sq ft (approx. size of XX tennis courts)

*[ When calculating coverage, one gallon treats 300 sq ft and a tennis court is 2,106 sq ft.]***KILLS** *[Illustrate grassy, broadleaf and woody weeds]***WEEDS** ALL TYPES OF WEEDS & GRASSES**WHERE** • On patios, walkways, driveways, gravel or mulch beds**TO USE** • Around flowers, shrubs or trees

• Along fences

• In large areas - For lawn replacement

- For garden plot preparation

• Other areas in your yard

**AMOUNT** For best results**TO USE** • 6 fl oz (12 Tbs) per gallon of water

Apply on warm days in bright sunlight

*[phone icon]* **Questions, Comments or Medical Information**

call (insert contact #)

[www.roundup.com](http://www.roundup.com)**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**MIXING INSTRUCTIONS***[optional tank sprayer illustration]***Tank Sprayer** (plastic, aluminum, fiberglass, plastic-lined steel or stainless steel. **(Do not (mix, store or) apply with (in) a galvanized or unlined steel sprayer.)**

- (For tough established weeds / For best results,) add 6 fl oz (12 Tbs) to 1 gallon of water.
- (For easy to kill weeds such as small seedlings, add 3 fl oz ( 6 Tbs) to 1 gallon of water.)
- Spot treat or spray evenly over 300 sq ft





[optional DNS illustration]

### Hose-End Sprayer

For large areas consider using the Ortho Dial 'n Spray®

- Set dial to 6 oz.
- To sprayer jar add 6 fl oz (12 Tbs) for each 300 sq ft. DO NOT add water.
- Spray evenly over measured area.
- After spraying, unused product can be poured back into its original container.

1 Tablespoon (Tbs) = 3 teaspoons (tsp)

1 fl oz = 2 Tbs

Do not (mix, store or) apply with (in) a galvanized or unlined steel (except stainless steel) sprayer, or through any irrigation system.

To clean sprayer after use, rinse sprayer and all sprayer parts with water 3 times. Spray rinse water on bare soil or gravel. After cleaning, sprayer may be used for other products.

### USER SAFETY RECOMMENDATIONS [optional illustration]

- Clothing and protective equipment exposed to this product should be washed in detergent and hot water. Such items should be kept and washed separate from other laundry.
- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing immediately if product gets inside; then wash thoroughly and put on clean clothing.

### HOW TO APPLY [optional illustration]

- Spray the weeds or grasses you want to kill until thoroughly wet.
- When spot treating weeds around desirable plants, shield plants from drift with a sheet (piece) of cardboard or plastic. If desirable plants are accidentally sprayed, rinse off immediately with water.

**IMPORTANT:** Do not spray plants or grasses you like - they may die too. Not recommended for spot weed control in lawns since Roundup [or insert brand name] kills lawn grasses.

**Application Restrictions:** Do not apply this product in a way that will contact any person or pet, either directly or through drift. Only the person applying this product may be in the area during application.



**WHEN TO APPLY** *[optional illustration]*

- Use anytime weeds and grasses are actively growing. (Apply when weeds are actively growing.)
- For best results, apply during warm, sunny weather (above 60° F) to accelerate systemic movement from foliage to roots.
- Apply when air is calm to prevent drift to desirable plants.
- *[insert brand name]* is Rainproof in 2 hours (30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes)
- *[Alternate text]* (RAIN-PROOF:) Rain or watering 2 hours (30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes) after application will not wash away effectiveness.
- *[optional text]* Apply when weeds are small and before seeds form. Established (Hard to kill) weeds may require a repeat application.

**ADDITIONAL TIPS** *[optional illustration]*

• **For Lawn Replacement**

Use *[insert brand name]* to kill a (an old) (an unwanted) lawn and (its) weeds before planting a new lawn (OR prior to laying a patio, sidewalk, or driveway).

*[Alternate text]* For lawn replacement use *[insert brand name]* to kill lawn and (&) weeds before planting new lawn.

- Skip one mowing before spraying.
- If soil is dry, water before application and 2 to 3 days after application.
- Wait 7 days after last application to rake, till or replant with seed or sod.

*[Alternate text]*

- Wait 7 days for weeds and lawn to die. Repeat if necessary.
- Rake or till to prepare area for planting seed or sod.
- (If green patches remain after 7 days, reapply.)

*[Alternate section]*

(Great) *[insert brand name]* Project: Lawn Renovation

Use *[insert brand name]* to kill sections of a weed-infested lawn before reseeding.

- Apply *[insert brand name]* to lawn weeds and grasses Wait 7 days after application to rake, till or replant with seed or sod.
- Work (1" of) Scotts Lawn Soil with Starter Fertilizer into existing soil, mixing well.
- For thick, green grass – guaranteed -- spread Scotts Pure Premium (or other Scotts grass seed) and water regularly (daily) to keep area moist (follow package instructions).
- For best results, add a thin layer of Scotts Miracle-Gro Sphagnum Peat Moss\* (or Scotts Lawn Soil) over the area to help seeded area stay moist throughout germination period.

• **For Flowerbed and Garden (Plot) Preparation**





Use [insert brand name] to kill weeds, grasses and brush before planting flowers, fruits, vegetables, trees or shrubs.

- If soil is dry, water before application and 2 to 3 days after application.
- Apply evenly over treatment area.
- (Wait 4 to 6 days for product to kill plants then cleanup plant refuse and till soil.)
- Wait (at least) 2 days before planting flowers, trees and shrubs. (Refer to the **When To Replant** section for planting intervals for fruits and vegetables)

[Alternate section]

- (Great) [insert brand name] Project: Garden(Plot) Preparation

Use [insert brand name] to kill unwanted weeds and grasses before planting flowers, fruits, vegetables, trees or shrubs.

- Apply [insert brand name] to vegetation in planting bed
- (Wait 4 to 6 days for product to kill plants then cleanup plant refuse and till soil.)
- Wait (at least) 2 days after application before planting flowers, trees, and shrubs. (Refer to the **When To Replant** section for planting intervals for fruits and vegetables)
- For best results, add 3" of Miracle-Gro Garden Soil to your garden. Rototill or spade to a depth of 6", mixing well.
- Feed (new) plants every 2 weeks with Miracle-Gro Plant Food (follow package instructions).

- **To Kill Vines**

- If vines are growing up poles, fences, or tree trunks with mature bark, cut vines to a height of 3 to 4 feet and spray vines thoroughly.
- If vines are climbing shrubs or tree trunks with green bark, cut vines at base and treat as directed for stumps or spray regrowth. If spraying regrowth, shield shrubs and green bark from spray drift with a sheet (piece) of cardboard or plastic.

- **To Kill Stumps**

- Cut living stump close to ground.
- Drive (drill) 4 to 5 holes into freshly cut stump.
- Immediately pour undiluted product into holes.

- **Kudzu**

For best results, apply in mid to late summer when vines are mature and actively growing.

- **Wild Blackberry**

Spray anytime plants are actively growing. Dead canes should be cut down and removed. Reapplication is often required to kill deep roots.

- **Poison Ivy & Poison Oak**

Contact with these plants anytime of the year can cause an allergic reaction. Spray anytime plants are actively growing, but at least 4 weeks before the first killing frost



in the fall. Reapply, if new growth appears. Handle dead plants with rubber gloves. Dispose of plants and rubber gloves in tightly sealed garbage bags.

**WHEN TO REPLANT** *[optional illustration]*

- All ornamental flowers, trees and shrubs may be planted **2 days after** application.
- Lawn grasses may be planted **7 days after** application.

**HOW IT WORKS** *[optional illustration]*

Roundup *[or insert brand name]* enters plants through foliage and moves systemically to the roots, killing weeds by stopping the production of a substance found in plants. Any product (Roundup) *[insert brand name]* not absorbed by plants will be deactivated after it hits the soil. Weeds usually yellow and wilt within hours with complete kill in 1 to 2 weeks.

*[optional section]*

**KILLS ALL TYPES OF WEEDS & GRASSES** *[optional illustration]*

**Weeds (including):** Artichoke thistle, beggarweed, black medic, blue mustard, blue toadflax, brassbuttons, broadleaf plantain, burclover, buttercup, Canada thistle, cattail, chickweed, cocklebur, common groundsel, common mullein, common plantain, common ragweed, creeping beggarweed, creeping-charlie, curly dock, dandelion, dog fennel, evening primrose, false dandelion, fiddleneck, field bindweed (wild morningglory), field pennycress, filaree, Florida pusley, garden spurge, henbit, horsetail, horseradish, horseweed/ maretail, iceplant, knapweed, knotweed, lambsquarters, lantana, little bittercress, London rocket, mallow, mayweed, milkweed, mouseear chickweed, narrowleaf (buckhorn) plantain, nightshade (silverleaf), oldenlandia, oxalis, Pennsylvania smartweed, pennywort, poison hemlock, prickly lettuce, primrose, prostrate spurge, puncturevine, ragweed, red clover, redroot pigweed, shepherdspurge, smooth catsear, smooth pigweed, sowthistle, spotted spurge, tansy ragwort, tansymustard, teaweed, trumpetcreeper, tumble mustard, Virginia creeper, white clover, whitetop, wild barley, wild mustard, wild oats, wild sweet potato, yellow starthistle, and other broadleaf weeds

**Grasses (including):** Annual bluegrass, annual ryegrass, bahiagrass, barnyardgrass, bentgrass, Bermudagrass, brome grass, Cogongrass, crabgrass, creeping bentgrass, dallisgrass, fall panicum, fescue, field sandbur, foxtail, goosegrass, guineagrass, Johnsongrass, Kentucky bluegrass, kikuyugrass, lovegrass, maidencane, nimblewill, nutsedge, orchardgrass, pampas grass, perennial ryegrass, purple nutsedge, quackgrass, sandspur, smooth brome grass, sprangletop, St. Augustinegrass, tall fescue, Texas panicum, Timothy, torpedograss, vaseygrass, witchgrass, yellow nutgrass, zoysia and other grassy weeds

**Brush (Tough Weeds), Unwanted Trees, Shrubs & Vines (including)**



Alder, ash, (quacking) aspen, blackberry, bluegum eucalyptus, broom (French, Scotch), buckwheat, ceanothus, chamise, cherry, coyote brush, dewberry, elderberry, elm, eucalyptus, giant reed, hawthorn, hazel, honeysuckle, kudzu, locust, madrone, maple, oak, persimmon, poison oak, poison ivy, poplar, raspberry, sage, sagebrush, salmonberry, saltcedar, sassafras, sumac, sweetgum, tan oak, thimbleberry, tree tobacco, wild rose (multiflora) willow and other tough weeds

#### STORAGE AND DISPOSAL *[trash can illustration]*

**STORAGE:** Store in original container in a safe place away from direct sunlight.

**DISPOSAL: Empty Container:** Do not reuse container. Put in trash. (Recycle where available.) **Partially Full Container:** Call your local waste disposal service or 1-800-CLEANUP. Never pour product down any drain.

#### HOW TO REFILL ROUNDUP READY-TO-USE CONTAINERS

- **24 fl oz Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 2 fl oz of Roundup Concentrate Plus *[or alternate brand name]* then fill with water very slowly to avoid foaming.
- **½ Gallon Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 5 fl oz of Roundup Concentrate Plus *[or alternate brand name]* then fill with water very slowly to avoid foaming.
- **Gallon Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 10 oz of Roundup Concentrate Plus *[or alternate brand name]* then fill with water very slowly to avoid foaming.
- **1.33 Gallon Roundup PNS (II):**  
To empty container add 13 fl oz of Roundup Concentrate Plus *[or alternate brand name]* then fill with water very slowly to avoid foaming.
- **6L Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 16 fl oz of Roundup Concentrate Plus *[or alternate brand name]* then fill with water very slowly to avoid foaming.
- **2 Gallon Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 20 fl oz of Roundup Concentrate Plus *[or alternate brand name]* then fill with water very slowly to avoid foaming.

#### PRECAUTIONARY STATEMENTS *[optional illustration]*

*[re-entry icon]* People and pets may enter treated area after spray has dried.

## HAZARDS TO HUMANS & DOMESTIC ANIMALS

### CAUTION:

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

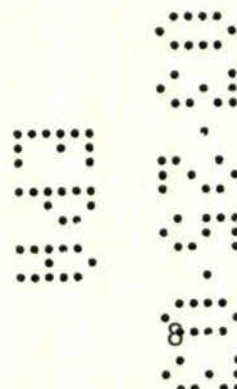
| FIRST AID  |   |
|--|---|
| If in eyes   | <ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently for 15-20 minutes.</li><li>• Remove contact lenses, if present, after first 5 minutes, then continue rinsing.</li><li>• Call a poison control center (insert contact telephone #) or doctor for treatment advice.</li></ul> |
| Emergency Medical Information  |   |
| <ul style="list-style-type: none"><li>• Have the product container or label with you when calling a poison control center or doctor, or going for treatment.</li><li>• You may contact (insert contact telephone #) for emergency medical treatment information.</li><li>• This product is identified as <b>[insert brand name], Reg. No. 71995-29</b></li></ul> |   |

**ENVIRONMENTAL HAZARDS:** This product is toxic to aquatic invertebrates. Do not apply directly to any body of water. Do not contaminate water when disposing of equipment washwaters.

**NOTICE:** Buyer assumes all responsibility for safety and use not in accordance with directions.

This product is protected by U.S. Patents No. 5,683,958 and No. 5,703,015 and No. 6,063,733 and No. 6,121,199 and No. 6,121,200. Other patents pending. No license granted under any non-U.S. patent(s).

This is an end-use product. Monsanto does not intend and has not registered if for reformulation or repackaging.



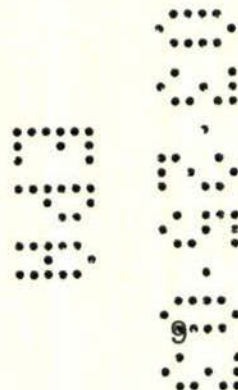


[phone icon] **Questions, Comments or Medical Information**  
**call insert contact #** [www.roundup.com](http://www.roundup.com)

Roundup is a trademark of Monsanto Technology LLC

©[ ] MONSANTO COMPANY

Manufactured for  
Monsanto Company, Lawn & Garden Products  
P.O. Box 418  
Marysville, OH 43041  
Form [ ]  
EPA Reg. No. 71995-29  
EPA Est. 239-IA-3<sup>1</sup>, 58996-MO-1<sup>A</sup>  
Superscript is first letter of lot number  
Made in USA



**APPENDIX 1 – Consolidated List of Label Claims**  
*[Ordered alphabetically]*

- Absorbed into both broadleaf and grassy weeds
- Absorbs on contact, starts working immediately
- Also use for large jobs such as lawn renovation and vegetable and flower garden preparation
- Approved for most (many) lawn and garden uses
- Before *[weed graphics]* / After *[weed graphics]*
- Begins absorbing on contact
- Can be used for habitat restoration, controlling exotic vegetation, and for site preparation of wildlife food plots
- Can reseed or sod lawns 7 days after treatment
- Concentrated for extra value
- Concentrated formula
- (Contains) FastAct™ (technology)
- Dead Weeds Guaranteed (or Your Money Back)
- Dead (weeds) in a day
- Does not have soil activity
- Economical
- Economical concentrate formula
- Easy to apply with an Ortho Dial 'n Spray®, hose-end, tank or (hand held) trigger sprayer
- Even if it rains – Roundup *[or insert brand name]* won't lose its effectiveness
- Exclusive Roundup *[or insert brand name]* formula
- Experience the Roundup Advantage (peel back this panel for detail) (see details inside / underneath this booklet) (see details on back panel)
- FastAct™ (Technology)
- Fast-acting formula
- Fast-acting formula works twice as fast (50% faster)
- Fast-acting formula absorbs to root more quickly
- For control that doesn't (won't) wash away
- For general weed control - kills weeds and grasses in 1 to 2 weeks - roots and all
- For weeds that are dead in a (one) day
- Guaranteed same effective results even if it rains within hours
- Guaranteed effective: Kills over 200 types of weeds and grasses, roots and all, with just one application
- Guaranteed (we guarantee it)
- Ideal for killing unwanted weeds and grasses throughout your yard. Use along fences; in cracks of walks, drives and patios; and around flower beds, trees and shrubs
- Improved extra strength formula
- Improved formula, completely kills even the toughest weeds and grasses
- Keeps driveways, walkways, landscaping beds, and flower gardens weed-free all season long
- Kills almost all (annual and perennial) weeds, grasses and other unwanted plants



- Kills existing weeds only, no residual activity in soil
- Kills more weeds in more places.
- Kills over 100 weeds
- Kills (to) the root
- Kills (the toughest weeds and grasses) the root so weeds (they) don't come back
- Kills the root so weeds don't come back
- Kills the roots of (both) broadleaf and grassy weeds
- Kills the weed you see and the root you don't
- Kills unwanted weeds and grasses, roots and all
- Kills weeds in flowerbeds, around trees, shrubs and fences, and on patios, paths, sidewalks, sidewalk cracks, walkways, driveways, and other areas in your yard
- Kills weeds, roots and all
- Lawns and gardens can be reseeded or planted soon after treatment
- Make only what you need
- Multipurpose grass and broadleaf weed control
- NEW!
- Next day (this weekend) results: Begins killing on contact, visible results in 24 hours
- No odor
- No root. No weed. No problem.
- NOW!
- Now a shorter wait for replanting!
- Once it enters the plant, it won't wash off
- One application kills over 200 types of weeds and grasses, roots and all (maximum effectiveness)
- Only Roundup's effectiveness (exclusive formula) won't be washed away by rain or watering 2 hours (30, 45, 60, 90 minutes) after treatment
- Only Roundup's effectiveness (formula) won't be washed away by rain or watering 2 hours ( 1 hour)(30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes) after treatment
- Proven (trusted) performance: Only Roundup [*or insert brand name*] works the first time, every time – and has for 25 years
- Provides maximum control: Kills weeds to the root so they don't ever come back
- Quick kill formula (the toughest)
- Quick-action formula lets you see results 50% faster (two times)
- Ornamental gardens can be reseeded or planted 1 day after treatment
- RainFast in hours (30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes)- enters the plant on contact
- RAIN-PROOF™ (Mistake Proof)
- RAIN-PROOF™ in two hours (30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes) (for control that won't wash away)
- Roundup [*or insert brand name*] can be used (almost) anywhere weeds and grasses grow, including patios, walkways, and driveways; along fences; in landscaping beds; or around flowers, shrubs and trees
- (Roundup) [*or insert brand name*] Kills the weed you see and the root others leave behind
- Roundup's exclusive (patented) formula (technology) kills to the root so weeds don't



come back

- Roundup [*or insert brand name*] kills weeds and grasses in – Patios – Driveways – Sidewalks – Ornamental Gardens and other non-lawn areas
- Satisfaction guaranteed or we will gladly refund purchase price
- Satisfaction guaranteed or your money back with proof of purchase
- (See) results in hours
- (See) results in 24 hours
- Speeds absorption to the root for complete kill
- Spray weeds (Use) in flowerbeds, around trees, shrubs and around fences, and on patios, paths, sidewalks, sidewalk cracks, walkways, driveways, and other areas in your yard
- Starts to kill in hours
- Starts working immediately (in hours)
- Stronger
- Transorb technology speeds Roundup to the root to kill even tough weeds
- Twice as fast
- (Use) For Brush Control
- (Use) For General Weed Control: Use along fences, paths, patios, sidewalks and driveways, around trees, shrubs, ornamental plantings, flowerbeds, and buildings, and in brick and gravel walkways.
- Use for large jobs like garden plot preparation and lawn replacement (renovation)
- (Use) For Lawn Renovation
- Use to trim and edge landscape areas.
- (Use) For Spot Spraying: Use in and around flowerbeds, ornamental trees, shrubs, fences, driveways and walkways
- (Use) For Stumps
- (Use in) Apply with a Big Shot™ Multi-Purpose Sprayer or other tank sprayer, or a (hand held) trigger sprayer
- Use to refill Roundup Ready-To-Use containers
- Use to prepare sites: for large plantings, for planting flowerbeds, fruit trees, ornamentals, vegetables and gardens, and for renovating lawns
- Visible effects are gradual wilting and yellowing advancing to complete browning and root destruction.
- Water based formula
- Won't wash off (away)
- Works first time, every time
- Works in hours
- Works overnight
- Works only when absorbed by the foliage of weeds



*[Promotional options]*

- Save up to \$[x] on (your) next purchase
- [X]% Free (More)
- Free weed guide inside
- Free [ ] with this purchase of Roundup concentrate quart
- FREE REFILL
- FREE SAMPLE
- SAMPLE NOT FOR SALE
- Value size

APPENDIX 2 – Packaging Related Claims

NET xx fl oz (qt or gal) (xx mL or L)

6 fl oz (177 mL)

6.5 fl oz (192 mL)

8 fl oz (237 mL)

13 oz (384 mL)

16 fl oz (1 pt) (473 mL)

32 fl oz (1 qt) 946 mL)

40 fl oz (1.18 L)

53.7 fl oz (0.42 gal) (1.5 L)

64 fl oz (1/2 gal) (1.89 L)

128 fl oz (1 gal) (3.79 L)

[corner flap]

OPEN

Resealable Label for Directions & Precautions

PULL HERE TO OPEN LABEL

PEEL HERE

PEEL OPEN FOR USE DIRECTIONS AND FURTHER INFORMATION

PRESS TO RESEAL

[Net contents] Makes up to 'X' gallons

Makes between 'X' – 'Y' gallons

Mix with water to make 'X' gallons of spray solution

Covers up to 'Z' sq ft

Mix with water to cover up to 'Z' sq ft

[  $X = \text{net contents} \div 3$  ]

[  $Y = \text{net contents} \div 6$  ]

[  $Z = X * 300$  ]

[Pint]

Makes up to 5 gallons

Makes between 2½ - 5 gallons

Mix with water to make 5 gallons of spray solution

Covers up to 1,500 sq ft

Mix with water to cover up to 1,500 sq ft

[Quart]

Makes up to 10 gallons

Makes between 5 – 10 gallons

Mix with water to make 10 gallons of spray solution

Covers up to 3,000 sq ft

Mix with water to cover up to 3,000 sq ft

[0.42 Gallon] Makes up to 18 gallons



Makes between 9 – 18 gallons  
Mix with water to make 18 gallons of spray solution  
Covers up to 5,400 sq ft  
Mix with water to cover up to 5,400 sq ft

*[Half Gallon]* Makes up to 21 gallons  
Makes between 10 – 21 gallons  
Mix with water to make 21 gallons of spray solution  
Covers up to 6,300 sq ft  
Mix with water to cover up to 6,300 sq ft

*[Gallon]* Makes up to 42 gallons  
Makes between 21 – 42 gallons  
Mix with water to make 42 gallons of spray solution  
Covers up to 12,600 sq ft  
Mix with water to cover up to 12,600 sq ft

New! Larger size, covers up to [ 'Z' ] sq ft

With (the convenient) measuring cup, mixing MON 78307 (controlling weeds around your home) has never been easier

With (the convenient) measuring cup, controlling weeds all around your home has never been this fast and easy

Note For Records

Name of Product: Roundup Weed & Grass Killer Concentrate Plus

EPA Registration No./ File Symbol 71995-29

Submission Date: 3/21/03

Received Date: 3/25/03

Date Worked: 2/9/04 & 2/11/04

Description of Action: Add Broadcast residential uses of lawn renovation and garden preparation. Label and Risk Assessment submitted.

Review Label & Risk Assessment.

Comments: Background: FR publication dated 9/18/02 lifted ban on residential broadcast uses for digoxin chloride, one of the ~~comp~~ components of this product. Broadcast use for residential sites are to be considered on case by case basis.

Review of risk assessment indicates all MOEs for prepared uses are ~~or~~ greater than 100. Risk assessment appears to have been correctly using most of same assumptions as in digest RGD except for appl rate and other parameters approved by Agency in 9/18/02 publication as submitted by CFFET, Monsanto member of task force and permitted to use task force data.

Label OK with ~~new~~ revision to storage & disposal.

Signature and Date: Register uses with comment.

Dickie Walters 2/11/04





United States  
**Environmental Protection Agency**  
 Washington, DC 20460

☐ Registration  
☒ Amendment  
☐ Other

OPP Identifier Number

~~294511~~  
 292243

### Application for Pesticide – Section I

|   |   |  |
|---|---|--|
| 1. Company/Product Number<br>EPA Reg. No. 71995-29  | 2. EPA Product Manager<br>Jim Tompkins  | 3. Proposed Classification<br><input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted |
| 4. Company/Product (Name)<br>Roundup Weed & Grass Killer Concentrate Plus   | PM #<br>25  |  |
| 5. Name and Address of Applicant (Include ZIP Code)<br>Monsanto Company, Lawn & Garden Products<br>600 13 <sup>th</sup> St., N.W., Suite 660<br>Washington, DC 20005<br><input type="checkbox"/> Check if this is a new address | 6. <b>Expedited Review.</b> In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to:<br>EPA Reg. No. _____<br>Product Name _____ |  |

### Section – II

|  |  |
|--|--|
| <input checked="" type="checkbox"/> Amendment – Explain below.                 | <input type="checkbox"/> Final printed labels in response to Agency letter dated _____ |
| <input type="checkbox"/> Resubmission in response to Agency letter dated _____ | <input type="checkbox"/> "Me Too" Application.   |
| <input type="checkbox"/> Notification – Explain below.                         | <input type="checkbox"/> Other – Explain below. 4/8/03                                 |

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Submission of amended master labeling and residential risk assessment to support of the inclusion of broadcast uses.

305  
 Review Risk Assessment

### Section – III

|  |   |  |  |   |                      |
|--|---|--|--|---|----------------------|
| 1. Material This Product Will Be Packaged In:  |   |  |  | 2. Type of Container  |                      |
| Child-Resistant Packaging<br><input type="checkbox"/> Yes*<br><input type="checkbox"/> No  | Unit Packaging<br><input type="checkbox"/> Yes<br><input type="checkbox"/> No | Water Soluble Packaging<br><input type="checkbox"/> Yes<br><input type="checkbox"/> No | <input type="checkbox"/> Metal<br><input type="checkbox"/> Plastic<br><input type="checkbox"/> Glass<br><input type="checkbox"/> Paper<br><input type="checkbox"/> Other (Specify) Plant Cells |   |                      |
| * Certification must be submitted  |   |  |  |   |                      |
| If "Yes"<br>Unit Packaging wgt.  |   | No. per<br>Container   | If "Yes"<br>Package wgt.   |   | No. per<br>Container |
| 3. Location of Net Contents Information<br><input type="checkbox"/> Label <input type="checkbox"/> Container   |   | 4. Size(s) Retail Container<br>Various   |  | 5. Location of Label Directions<br><input type="checkbox"/> On Label<br><input type="checkbox"/> On Labeling accompanying product |                      |
| 6. Manner in Which Label is Affixed to Product<br><input type="checkbox"/> Lithograph <input type="checkbox"/> Other _____<br><input type="checkbox"/> Paper glued<br><input type="checkbox"/> Stenciled |   |  |  |   |                      |

### Section – IV

|   |                                  |   |
|---|----------------------------------|---|
| 1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)   |                                  |   |
| Name<br>Dr. Marsha C. Gray  | Title<br>Registration Manager    | Telephone No. (Include Area Code)<br>(202) 783-2460 |
| <b>Certification</b><br>I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete.<br>I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law. |                                  | 6. Date Application Received (Stamped)              |
| 2. Signature<br>Rhonda M. Mann  | 3. Title<br>Registration Manager |   |
| 4. Typed Name<br>Rhonda M. Mannion 314/ 694-8785  | 5. Date<br>21 March 2003         |   |



## MONSANTO COMPANY

800 NORTH LINDBERGH BLVD  
ST. LOUIS, MISSOURI 63167  
<http://www.monsanto.com>

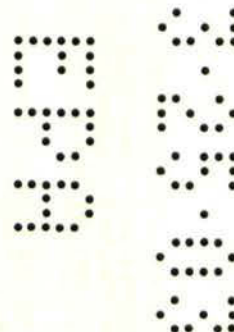
21 March 2003

**Hand Delivered**

Document Processing Center (AMEND)  
Office of Pesticide Programs  
U.S. Environmental Protection Agency  
Room 266A, Crystal Mall 2,  
1921 Jefferson Davis Highway  
Arlington, VA 22202-4501

Attention: Mr. Jim Tompkins (7505C)  
Product Manager (Team 25)

Subject: **Roundup Weed & Grass Killer Concentrate Plus (EPA Reg. No. 71995-29).  
Amendment to include broadcast applications.**



Dear Mr. Tompkins,

On 18 September 2002 the Agency removed the ban on residential broadcast uses of diquat dibromide, stating that broadcast applications by homeowners will be decided on a case-by-case basis upon the review of short-term residential exposure and individual risk assessments. Monsanto currently markets a consumer residential product that contains diquat. Accordingly, Monsanto desires to incorporate the broadcast uses of lawn renovation and garden plot preparation into the Roundup Weed & Grass Killer Concentrate Plus registration (Reg. No. 71995-29).

To this end Monsanto has conducted short-term residential and aggregate risk assessments. These assessments were entirely based upon the Agency assessments as documented in the 6 March 2002 Diquat TRED with the following exceptions:

- A dermal absorption rate of 0.3% was used for diquat, EPA concluded that this value is acceptable for risk assessments in the 18 September 2002 Federal Register (Vol. 67, No. 181, p. 58797-99).
- The product specific use rate for Roundup Weed & Grass Killer Concentrate Plus (MON 78307) was used.
- The transferable residue value from the ORTEF report (Klonne, 2000) was substituted for the EPA default value of 5%. As a member of the ORTEF Monsanto is permitted to make reference to these data.

The resulting aggregate Margins of Exposure for females and children 1-6 years are 410 and 150, respectively. These MOEs meet the minimum acceptable threshold of 100 as established in the 2002 Diquat Dibromide TRED, therefore no adverse health effects are expected to occur as a result of the proposed broadcast uses of Roundup Weed & Grass Killer Concentrate Plus.



The following documents are enclosed with this letter :

- One (1) Applications for Pesticide - Amendment (form 8570-1)
- Five (5) copies of the proposed Roundup Weed & Grass Killer Concentrate Plus Master Label
- One (1) copy of the proposed Roundup Weed & Grass Killer Concentrate Plus Master Label highlighting revisions to the most recent approved label dated 24 September 2002
- Short-term Residential and Aggregate Risk Assessment (C. Gustin, Nov. 2002)

Should you require any additional information or have any questions, please contact Dr. Marsha Gray at our Washington office (202)-783-2878 or me directly at (314) 694-8785 or [rhonda.m.mannion@monsanto.com](mailto:rhonda.m.mannion@monsanto.com).

Sincerely,



Rhonda M. Mannion.  
Registration Manager

cc: V. Walters / EPA  
M. Gray / DC Office  
B. Kliewer/ C3ND (no attachment)  
D. Fee-White/ A2N (no attachment)  
File copy





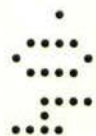


February 2, 2004

Office of Pesticide Programs (OTHER)  
Document Processing Center (7504C)  
U.S. Environmental Protection Agency  
Crystal Mall #2, Room 266A  
1921 Jefferson Davis Highway  
Arlington, VA 22202-4501

Attention: Mr. James A. Tompkins  
Team Leader (25)

Subject: **Submission of Final Printed Label**  
**Roundup® Weed & Grass Killer Concentrate Plus**  
**EPA Reg. No. 71995-29**



Dear Mr. Tompkins:

Monsanto is submitting for your files, five (5) copies of the final printed label (FPL) for Roundup® Weed & Grass Killer Concentrate Plus, EPA Reg. No. 71995-29, Print Plate Nos. PPN 21208B3-1 (071800) and PPN 21208B3-2 (071700). The final printed label is based on the EPA stamped master label for EPA Reg. No. 71995-29, dated September 24, 2002. Differences are noted below:

- Updated Manufactured for Monsanto Company address, to Marysville, OH 43041, first and last page of Directions for Use FPL pamphlet
- Minor grammar corrections, formatting, updated logo, copyright date and Monsanto Print Plate Nos.
- Elected not to print all text, ie: Omitted Kudzu, Wild Blackberry, and Poison Ivy & Poison Oak, in the When to Apply section, page 4 of EPA stamped label

Page 2  
Mr. James Tompkins  
February 2, 2004

Should you require any additional information or have any questions regarding this submission, please contact Dr. Russ Schneider at Monsanto Washington office (202)783-2866, or me at (314)694-3285, trstan@monsanto.com.

Sincerely,

*Tonya R. Staniforth*

Tonya R. Staniforth  
Registration Specialist

cc: Vickie Walters  
Russell Schneider, Ph.D.  
File Copy

PO

10

10

10





United States  
**Environmental Protection Agency**  
 Washington, DC 20460

☐ Registration  
☐ Amendment  
☒ Other

OPP Identifier Number  
**296791**

### Application for Pesticide – Section I

|   |   |  |
|---|---|--|
| 1. Company/Product Number<br>Monsanto Company, Lawn & Garden Products<br>EPA Reg. No. 71995-29  | 2. EPA Product Manager<br>James A. Tompkins   | 3. Proposed Classification<br><br><input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted |
| 4. Company/Product (Name)<br>Monsanto Company, Lawn & Garden Products<br>Roundup Weed & Grass Killer Concentrate Plus   | PM #<br>25  |  |
| 5. Name and Address of Applicant (Include ZIP Code)<br>Monsanto Company<br>600 13 <sup>th</sup> St., N.W., Suite 660<br>Washington, DC 20005<br><input type="checkbox"/> Check if this is a new address | 6. <b>Expedited Review.</b> In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to:<br>EPA Reg. No. _____<br>Product Name _____ |  |

### Section – II

|  |  |
|--|--|
| <input type="checkbox"/> Amendment – Explain below.                            | <input type="checkbox"/> Final printed labels in response to Agency letter dated _____ |
| <input type="checkbox"/> Resubmission in response to Agency letter dated _____ | <input type="checkbox"/> "Me Too" Application.   |
| <input type="checkbox"/> Notification – Explain below.                         | <input checked="" type="checkbox"/> Other – Explain below.                             |

Explanation: Use additional page(s) if necessary. (For section I and Section II.)  
 Submission of Final Printed Label Booklet

### Section – III

|  |   |  |  |   |  |
|--|---|--|--|---|--|
| 1. Material This Product Will Be Packaged In:  |   |  |  | 2. Type of Container  |  |
| Child-Resistant Packaging<br><input type="checkbox"/> Yes*<br><input type="checkbox"/> No  | Unit Packaging<br><input type="checkbox"/> Yes<br><input type="checkbox"/> No | Water Soluble Packaging<br><input type="checkbox"/> Yes<br><input type="checkbox"/> No | <input type="checkbox"/> Metal<br><input type="checkbox"/> Plastic<br><input type="checkbox"/> Glass<br><input type="checkbox"/> Paper<br><input type="checkbox"/> Other (Specify) _____ |   |  |
| * <b>Certification must be submitted</b>   |   | If "Yes" Unit Packaging wgt. No. per Container   | If "Yes" Package wgt. No. per Container  |   |  |
| 3. Location of Net Contents Information<br><input type="checkbox"/> Label <input type="checkbox"/> Container   |   | 4. Size(s) Retail Container  |  | 5. Location of Label Directions<br><input type="checkbox"/> On Label<br><input type="checkbox"/> On Labeling accompanying product |  |
| 6. Manner in Which Label is Affixed to Product<br><input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled <input type="checkbox"/> Other _____ |   |  |  |   |  |

### Section – IV

|   |  |                                       |  |   |  |
|---|--|---------------------------------------|--|---|--|
| 1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)   |  |                                       |  |   |  |
| Name<br>Russell P. Schneider, Ph.D.   |  | Title<br>Director, Regulatory Affairs |  | Telephone No. (Include Area Code)<br>(202) 383-2866 |  |
| <b>Certification</b><br><i>I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.</i> |  |                                       |  |   | 6. Date Application Received (Stamped)<br><br> |
| 2. Signature<br>  |  | 3. Title<br>Registration Specialist   |  |   |  |
| 4. Typed Name<br>Tonya R. Staniforth  |  | 5. Date<br>February 2, 2004           |  |   |  |

**FASTACT<sup>®</sup> TECHNOLOGY** **24 HOURS!** RESULTS IN

# Roundup

WEED & GRASS KILLER

**CONCENTRATE PLUS**

**NO ROOT.  
NO WEED.  
NO PROBLEM.<sup>®</sup>**

PPN 2120883-1 (071900)

KEEP OUT OF REACH OF CHILDREN

See back panel booklet for additional precautionary statements. **CAUTION**

NET 16 FL OZ (1 PT)

Active Ingredients:  
 Glyphosate, isopropylamine salt... 18.00%  
 Diquat Dibromide... 0.73%  
 Other Ingredients... 81.27%

NOT REVIEWED  
 In Accordance with PR Notices 83-8.  
 based on Draft Labeling Dated

9/24/02

NOT REVIEWED  
 In Accordance with PR Notices 83-8.  
 based on Draft Labeling Dated

**Roundup** Weed & Grass Killer Concentrate Plus

**RAIN-PROOF<sup>®</sup> IN ONE HOUR**  
 FOR CONTROL THAT WON'T WASH AWAY

**PRODUCT FACTS**

**Makes up to 5 Gallons**  
 Treats up to 1,500 sq ft (approx. size of 3/4 tennis court)

**KILLS WEEDS**

ALL TYPES OF WEEDS & GRASSES

**WHERE TO USE**

- ✓ On patios, walkways, driveways, gravel or mulch beds
- ✓ Around flowers, shrubs or trees
- ✓ Along fences
- ✓ Other areas of your yard

**AMOUNT TO USE** For Best Results -- 6 fl oz (12 Tbs) per gallon of water.  
 Apply on warm days in bright sunlight.

Questions, Comments or Medical Information:  
 Call 1-800-246-7219 [www.roundup.com](http://www.roundup.com)

For easy to kill weeds such as seedlings  
 add 3 fl oz (6 Tbs) to 1 gallon of water.

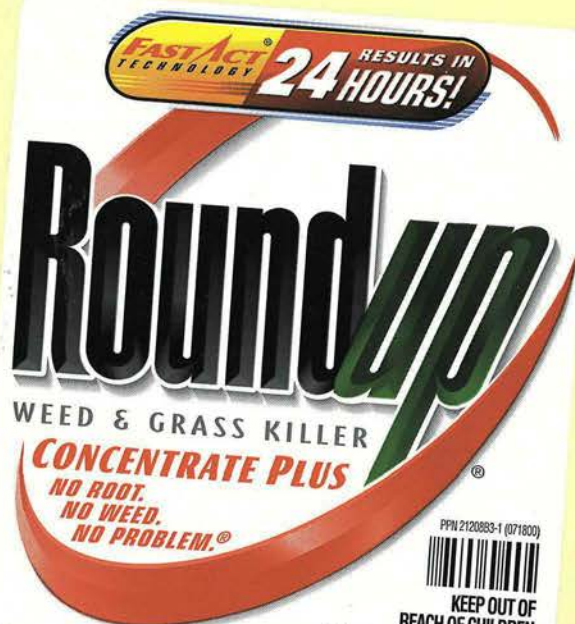
Manufactured for  
 Monsanto Company, Lawn & Garden Products  
 P.O. Box 418  
 Marysville, OH 43041  
 PPN 2120883-2 (071700)  
 EPA Reg. No. 71995-29  
 EPA Est. 239-1A-3, 58996-MO-1A  
 Superscript is first letter of lot number.  
 Made in USA

0 70183 50055 0

1040

PRESS TO RESEAL





Active Ingredients:  
 Glyphosate, isopropylamine salt... 18.00%  
 Diquat Dibromide... 0.73%  
 Other Ingredients... 81.27%

PPN 2120893-1 (071800)



KEEP OUT OF  
 REACH OF CHILDREN

See back panel booklet for  
 additional precautionary statements

**CAUTION**  
 NET 16 FL. OZ (1 PT)

**NOT REVIEWED**  
 In Accordance with PR Notice 83-B.  
 based on Draft Labeling Dated

9/24/02

**NOT REVIEWED**  
 In Accordance with PR Notice 83-B.  
 based on Draft Labeling Dated

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

#### MIXING INSTRUCTIONS

**Tank Sprayer** (plastic, aluminum, fiberglass, plastic-lined steel or stainless steel). **DO NOT MIX, STORE, OR APPLY IN GALVANIZED OR UNLINED STEEL SPRAYER.**

- Add 6 fl oz (12 Tbs) to 1 gallon of water.
- Spot treat.

1 Tablespoon (Tbs) = 3 teaspoons (tsp)

1 fl oz = 2 Tbs

For easy to kill weeds such as seedlings add 3 fl oz (6 Tbs) to 1 gallon of water.

Do not apply with a galvanized or unlined steel (except stainless steel) sprayer or through any irrigation system.

To clean sprayer after use, rinse sprayer and all sprayer parts with water 3 times. Spray rinse water on bare soil or gravel. After cleaning, sprayer may be used for other products.

#### User Safety Recommendations

- Clothing and protective equipment exposed to this product should be washed in detergent and hot water. Such items should be kept and washed separate from other laundry.
- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing immediately if product gets inside; then wash thoroughly and put on clean clothing.

#### How To Apply

- Spray the weeds or grasses you want to kill until thoroughly wet.
- When spot treating weeds around desirable plants, shield plants from drift with a piece of cardboard or plastic. If desirable plants are accidentally sprayed, rinse off immediately with water.

1

**Important:** Do not spray plants or grasses you like - they may die too. Not recommended for spot weed control in lawns since Roundup kills lawn grasses.

**Application Restrictions:** Do not apply this product in a way that will contact any person or pet, either directly or through drift. Only the person applying this product may be in the area during application.

#### When To Apply

- Apply when weeds are actively growing.
- For best results, apply during warm, sunny weather (above 60° F) to accelerate systemic movement from foliage to roots.
- Apply when air is calm to prevent drift to desirable plants.
- **RAIN-PROOF:** Rain or watering 1 hour after application will not wash away effectiveness.

#### Additional Tips

##### To Kill Vines

- If vines are growing up poles, fences, or tree trunks with mature bark, cut vines to a height of 3 to 4 feet and spray vines thoroughly.
- If vines are climbing shrubs or tree trunks with green bark, cut vines at base and treat as directed for stumps or spray regrowth. If spraying regrowth, shield shrubs and green bark from spray drift with a piece of cardboard or plastic.

##### To Kill Stumps

- Cut living stump close to ground.
- Drive 4 to 5 holes into freshly cut stump.
- Immediately pour undiluted product into holes.

##### When To Replant

- All ornamental flowers, trees and shrubs may be planted **2 days** after application.
- Lawn grasses may be planted **7 days** after application.

(Continued)

2

PRESS TO RESEAL

**FAST ACT TECHNOLOGY** **24 HOURS!** RESULTS IN

# Roundup

**WEED & GRASS KILLER**  
**CONCENTRATE PLUS**  
**NO ROOT. NO WEED. NO PROBLEM.®**

PPN 21208B3-1 (071800)

KEEP OUT OF REACH OF CHILDREN  
**CAUTION**

See back panel booklet for additional precautionary statements.

Active Ingredients:  
 Glyphosate, isopropylamine salt... 18.00%  
 Diguent Dibromide... 0.73%  
 Other Ingredients... 81.27%

**NET 16 FL. OZ (1 PT)**

**NOT REVIEWED**  
 In Accordance with PR Notice 83-2.  
 based on Draft Labeling Dated

9/24/02

**NOT REVIEWED**  
 In Accordance with PR Notice 83-2.  
 based on Draft Labeling Dated

### How It Works

Roundup Concentrate Plus enters plants through foliage and moves systemically to the roots, killing weeds by stopping the production of a substance found in plants. Any product not absorbed by plants will be deactivated after it hits the soil. Weeds usually yellow and wilt within hours with complete kill in 1 to 2 weeks.

**Satisfaction Guaranteed or your money back with proof of purchase.**

### STORAGE AND DISPOSAL

**Storage:** Store in original container in a safe place away from direct sunlight.

**Disposal: Empty Container:** Do not reuse container. Put in trash. (Recycle where available.) **Partially Full Container:** Call your local waste disposal service or 1-800-CLEANUP. Never pour product down any drain.

This product is protected by U.S. Patent Nos. 5,683,958; 5,703,015; 6,063,733; 6,121,199; and 6,121,200. Other patents pending. No license granted under any non-U.S. patent(s).

This is an end-use product. Monsanto does not intend and has not registered it for reformulation or repackaging.

Roundup is a trademark of Monsanto Technology LLC.

**NOTICE:** Buyer assumes all responsibility for safety and use not in accordance with directions.

© 2003 MONSANTO COMPANY

3

### Roundup Weed & Grass Killer Concentrate Plus

#### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS & DOMESTIC ANIMALS

**CAUTION:** Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

**People and pets may enter treated areas after spray has dried.**

| FIRST AID  |  |
|------------|--|
| If in eyes | • Hold eye open and rinse slowly and gently for 15-20 minutes.                     |
|            | • Remove contact lenses, if present, after first 5 minutes, then continue rinsing. |
|            | • Call a poison control center, 1-800-246-7219, or doctor for treatment advice.    |

#### Emergency Medical Information:

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- You may contact 1-800-246-7219 for emergency medical treatment information.
- This product is identified as **Roundup Weed & Grass Killer Concentrate Plus, EPA Reg. No. 71995-29.**

**ENVIRONMENTAL HAZARDS:** This product is toxic to aquatic invertebrates. Do not apply directly to any body of water. Do not contaminate water when disposing of equipment washwaters.

(See leaflet for Storage and Disposal Information)

**Questions, Comments or Medical Information:**  
 Call 1-800-246-7219 [www.roundup.com](http://www.roundup.com)

Manufactured for Monsanto Company, Lawn & Garden Products  
 P.O. Box 418, Marysville, OH 43041  
 EPA Est. 239-IA-3, 58996-MO-1A  
 Superscript is first letter of lot number.

EPA Reg. No. 71995-29

PPN 21208B3-2 (071700)

Made in USA

PRESS TO RESEAL





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

**SEP 24 2002**

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

Ms. Rhonda M. Mannion  
Monsanto Company  
600 13<sup>th</sup> Street, N. W., Suite 660  
Washington, DC 20005

Dear Ms. Mannion:

Subject: Roundup Weed & Grass Killer Concentrate Plus  
EPA Registration No. 71995-29  
Your Application Dated June 25, 2002

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act as amended is acceptable. Amended labeling supercedes all previously accepted ones. A stamped copy of labeling is enclosed for your records.

Sincerely,

*Vickie K. Walters for*  
James A. Tompkins  
Product Manager 25  
Herbicide Branch  
Registration Division (7505C)

**MON 78307 Herbicide**  
**EPA Reg No. 71995-29**

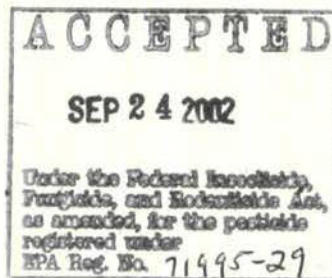
*[Editorial Notes: Bracketed text [ ] is for internal use or serves as a 'place holder' for graphics. Parenthetical text ( ) denotes optional wording.]*

*[Refer to APPENDIX 1 for consolidated list of label claims.]*

*[Refer to APPENDIX 2 for packaging related claims/instructions]*

**Roundup Weed & Grass Killer Concentrate Plus**

Alternate Brand Name : MON 78307 Herbicide



**Active Ingredient**

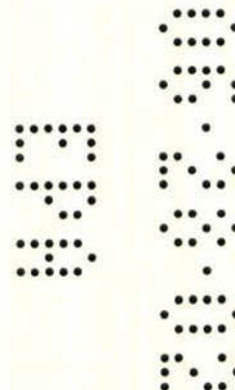
Glyphosate, isopropylamine salt ..... 18.0 %  
Diquat dibromide..... 0.73 %  
Other Ingredients .....81.27 %

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

See back panel booklet for additional precautionary statements.  
(Read precautions and directions on back label.)

NET [xxx]





|  |  |
|--|--|
| <b>Product Facts</b>   |  |
| Treats up to xx sq ft (approx. size of XX tennis courts)<br>[ When calculating coverage, one gallon treats 300 sq ft and a tennis court is 2,106 sq ft.] |  |
| <b>KILLS WEEDS</b>   | [Illustrate grassy, broadleaf and woody weeds]<br>ALL TYPES OF WEEDS & GRASSES   |
| <b>WHERE TO USE</b>  | <ul style="list-style-type: none"><li>• On patios, walkways, driveways, gravel or mulch beds</li><li>• Around flowers, shrubs or trees</li><li>• Along fences</li><li>• Other areas in your yard</li></ul> |
| <b>AMOUNT TO USE</b>   | <b>For best results</b><br>• 6 fl oz (12 Tbs) per gallon of water<br>Apply on warm days in bright sunlight   |
| [phone icon]   | <b>Questions, Comments or Medical Information</b><br><b>call</b> (insert contact #) <a href="http://www.roundup.com">www.roundup.com</a>   |

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

#### MIXING INSTRUCTIONS

[optional tank sprayer illustration]

**Tank Sprayer** (plastic, aluminum, fiberglass, plastic-lined steel or stainless steel. **(Do not (mix, store or) apply with (in) a galvanized or unlined steel sprayer.)**

- (For tough established weeds / For best results,) add 6 fl oz (12 Tbs) to 1 gallon of water.
- (For easy to kill weeds such as small seedlings, add 3 fl oz ( 6 Tbs) to 1 gallon of water.)
- (Spot treat)

1 Tablespoon (Tbs) = 3 teaspoons (tsp)

1 fl oz = 2 Tbs

Do not (mix, store or) apply with (in) a galvanized or unlined steel (except stainless steel) sprayer, or through any irrigation system.

To clean sprayer after use, rinse sprayer and all sprayer parts with water 3 times. Spray rinse water on bare soil or gravel. After cleaning, sprayer may be used for other products.

**USER SAFETY RECOMMENDATIONS** *[optional illustration]*

- Clothing and protective equipment exposed to this product should be washed in detergent and hot water. Such items should be kept and washed separate from other laundry.
- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing immediately if product gets inside; then wash thoroughly and put on clean clothing.

**HOW TO APPLY** *[optional illustration]*

- Spray the weeds or grasses you want to kill until thoroughly wet.
- When spot treating weeds around desirable plants, shield plants from drift with a sheet (piece) of cardboard or plastic. If desirable plants are accidentally sprayed, rinse off immediately with water.

**IMPORTANT:** Do not spray plants or grasses you like - they may die too. Not recommended for spot weed control in lawns since Roundup *[or insert brand name]* kills lawn grasses.

**Application Restrictions:** Do not apply this product in a way that will contact any person or pet, either directly or through drift. Only the person applying this product may be in the area during application.

**WHEN TO APPLY** *[optional illustration]*

- Use anytime weeds and grasses are actively growing. (Apply when weeds are actively growing.)
- For best results, apply during warm, sunny weather (above 60° F) to accelerate systemic movement from foliage to roots.
- Apply when air is calm to prevent drift to desirable plants.
- *[insert brand name]* is Rainproof in 2 hours (30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes)
- *[Alternate text]* (RAIN-PROOF:) Rain or watering 2 hours (30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes) after application will not wash away effectiveness.
- (Apply when weeds are small and before seeds form. Established (Hard to kill) weeds may require a repeat application.)



**ADDITIONAL TIPS** *[optional illustration]*

- **To Kill Vines**

- If vines are growing up poles, fences, or tree trunks with mature bark, cut vines to a height of 3 to 4 feet and spray vines thoroughly.
- If vines are climbing shrubs or tree trunks with green bark, cut vines at base and treat as directed for stumps or spray regrowth. If spraying regrowth, shield shrubs and green bark from spray drift with a sheet (piece) of cardboard or plastic.

- **To Kill Stumps**

- Cut living stump close to ground.
- Drive (drill) 4 to 5 holes into freshly cut stump.
- Immediately pour undiluted product into holes.

- **Kudzu**

For best results, apply in mid to late summer when vines are mature and actively growing.

- **Wild Blackberry**

Spray anytime plants are actively growing. Dead canes should be cut down and removed. Reapplication is often required to kill deep roots.

- **Poison Ivy & Poison Oak**

Contact with these plants anytime of the year can cause an allergic reaction. Spray anytime plants are actively growing, but at least 4 weeks before the first killing frost in the fall. Reapply, if new growth appears. Handle dead plants with rubber gloves. Dispose of plants and rubber gloves in tightly sealed garbage bags.

**WHEN TO REPLANT** *[optional illustration]*

- All ornamental flowers, trees and shrubs may be planted **2 days after** application.
- Lawn grasses may be planted **7 days after** application.

**HOW IT WORKS** *[optional illustration]*

Roundup *[insert brand name]* enters plants through foliage and moves systemically to the roots, killing weeds by stopping the production of a substance found in plants. Any product (Roundup) *[insert brand name]* not absorbed by plants will be deactivated after it hits the soil. Weeds usually yellow and wilt within hours with complete kill in 1 to 2 weeks.



[optional section]

**KILLS ALL TYPES OF WEEDS & GRASSES** [optional illustration]

**Weeds (including):** Artichoke thistle, beggarweed, black medic, blue mustard, blue toadflax, brassbuttons, broadleaf plantain, burclover, buttercup, Canada thistle, cattail, chickweed, cocklebur, common groundsel, common mullein, common plantain, common ragweed, creeping beggarweed, creeping-charlie, curly dock, dandelion, dog fennel, evening primrose, false dandelion, fiddleneck, field bindweed (wild morningglory), field pennycress, filaree, Florida pusley, garden spurge, henbit, horsenettle, horseradish, horseweed/ marestail, iceplant, knapweed, knotweed, lambsquarters, lantana, little bittercress, London rocket, mallow, mayweed, milkweed, mouseear chickweed, narrowleaf (buckhorn) plantain, nightshade (silverleaf), oldenlandia, oxalis, Pennsylvania smartweed, pennywort, poison hemlock, prickly lettuce, primrose, prostrate spurge, puncturevine, ragweed, red clover, redroot pigweed, shepherdspurse, smooth catsear, smooth pigweed, sowthistle, spotted spurge, tansy ragwort, tansymustard, teaweed, trumpetcreeper, tumble mustard, Virginia creeper, white clover, whitetop, wild barley, wild mustard, wild oats, wild sweet potato, yellow starthistle, and other broadleaf weeds

**Grasses (including):** Annual bluegrass, annual ryegrass, bahiagrass, barnyardgrass, bentgrass, Bermudagrass, brome grass, Cogongrass, crabgrass, creeping bentgrass, dallisgrass, fall panicum, fescue, field sandbur, foxtail, goosegrass, guineagrass, Johnsongrass, Kentucky bluegrass, kikuyugrass, lovegrass, maidencane, nimblewill, nutsedge, orchardgrass, pampas grass, perennial ryegrass, purple nutsedge, quackgrass, sandspur, smooth brome grass, sprangletop, St. Augustinegrass, tall fescue, Texas panicum, Timothy, torpedograss, vaseygrass, witchgrass, yellow nutgrass, zoysia and other grassy weeds

**Brush (Tough Weeds), Unwanted Trees, Shrubs & Vines (including):**

Alder, ash, (quacking) aspen, blackberry, bluegum eucalyptus, broom (French, Scotch), buckwheat, ceanothus, chamise, cherry, coyote brush, dewberry, elderberry, elm, eucalyptus, giant reed, hawthorn, hazel, honeysuckle, kudzu, locust, madrone, maple, oak, persimmon, poison oak, poison ivy, poplar, raspberry, sage, sagebrush, salmonberry, saltcedar, sassafras, sumac, sweetgum, tan oak, thimbleberry, tree tobacco, wild rose (multiflora) willow and other tough weeds

**STORAGE AND DISPOSAL** [trash can illustration]

**STORAGE:** Store in original container in a safe place away from direct sunlight.

**DISPOSAL: Empty Container:** Do not reuse container. Put in trash. (Recycle where available.) **Partially Full Container:** Call your local waste disposal service or 1-800-CLEANUP. Never pour product down any drain.

**HOW TO REFILL ROUNDUP READY-TO-USE CONTAINERS**

- **24 fl oz Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**



**MON 78307 Herbicide**  
**EPA Reg No. 71995-29**

To empty container add 2 fl oz of Roundup Concentrate Plus [*or alternate brand name*] then fill with water very slowly to avoid foaming.

- **½ Gallon Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 5 fl oz of Roundup Concentrate Plus [*or alternate brand name*] then fill with water very slowly to avoid foaming.
- **Gallon Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 10 oz of Roundup Concentrate Plus [*or alternate brand name*] then fill with water very slowly to avoid foaming.
- **1.33 Gallon Roundup PNS (II):**  
To empty container add 13 fl oz of Roundup Concentrate Plus [*or alternate brand name*] then fill with water very slowly to avoid foaming.
- **6L Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 16 fl oz of Roundup Concentrate Plus [*or alternate brand name*] then fill with water very slowly to avoid foaming.
- **2 Gallon Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 20 fl oz of Roundup Concentrate Plus [*or alternate brand name*] then fill with water very slowly to avoid foaming.

|  |
|--|
| <b>PRECAUTIONARY STATEMENTS</b> [ <i>optional illustration</i> ] |
|--|

[*re-entry icon*] People and pets may enter treated area after spray has dried.

**HAZARDS TO HUMANS & DOMESTIC ANIMALS**

**CAUTION:**

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

| FIRST AID  |   |
|--|---|
| If in eyes   | <ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently for 15-20 minutes.</li><li>• Remove contact lenses, if present, after first 5 minutes, then continue rinsing.</li><li>• Call a poison control center (insert contact telephone #) or doctor for treatment advice.</li></ul> |
| Emergency Medical Information  |   |
| <ul style="list-style-type: none"><li>• Have the product container or label with you when calling a poison control center or doctor, or going for treatment.</li><li>• You may contact (insert contact telephone #) for emergency medical treatment information.</li><li>• This product is identified as [<i>insert brand name</i>], Reg. No. 71995-29</li></ul> |   |

**MON 78307 Herbicide**  
**EPA Reg No. 71995-29**

**ENVIRONMENTAL HAZARDS:** This product is toxic to aquatic invertebrates. Do not apply directly to any body of water. Do not contaminate water when disposing of equipment washwaters.

**NOTICE:** Buyer assumes all responsibility for safety and use not in accordance with directions.

This product is protected by U.S. Patents No. 5,683,958 and No. 5,703,015 and No. 6,063,733 and No. 6,121,199 and No. 6,121,200. Other patents pending. No license granted under any non-U.S. patent(s).

This is an end-use product. Monsanto does not intend and has not registered if for reformulation or repackaging.

|  |
|--|
| <p>[phone icon] <b>Questions, Comments or Medical Information</b><br/><b>call insert contact #</b>      <a href="http://www.roundup.com">www.roundup.com</a></p> |
|--|

Roundup is a trademark of Monsanto Technology LLC

©[ ] MONSANTO COMPANY

Manufactured for  
Monsanto Company, Lawn & Garden Products  
P.O. Box 418  
Columbus, OH 43216-0418  
Form [ ]  
EPA Reg. No. 71995-29  
EPA Est. 239-IA-3<sup>1</sup>, 58996-MO-1<sup>A</sup>  
Superscript is first letter of lot number  
Made in USA



**APPENDIX 1 – Consolidated List of Label Claims**  
*[Ordered alphabetically]*

- Absorbed into both broadleaf and grassy weeds
- Absorbs on contact, starts working immediately
- Approved for most (many) lawn and garden uses
- Before *[weed graphics]* / After *[weed graphics]*
- Begins absorbing on contact
- Can be used for habitat restoration, controlling exotic vegetation, and for site preparation of wildlife food plots
- Can reseed or sod lawns 7 days after treatment
- Concentrated for extra value
- Concentrated formula
- (Contains) FastAct™ (technology)
- Dead Weeds Guaranteed (or Your Money Back)
- Dead (weeds) in a day
- Does not have soil activity
- Economical
- Economical concentrate formula
- Easy to apply with a tank or (hand held) trigger sprayer
- Even if it rains – Roundup *[or insert brand name]* won't lose its effectiveness
- Exclusive Roundup *[or insert brand name]* formula
- Experience the Roundup Advantage (peel back this panel for detail) (see details inside / underneath this booklet) (see details on back panel)
- FastAct™ (Technology)
- Fast-acting formula
- Fast-acting formula works twice as fast (50% faster)
- Fast-acting formula absorbs to root more quickly
- For control that doesn't (won't) wash away
- For general weed control - kills weeds and grasses in 1 to 2 weeks - roots and all
- For weeds that are dead in a (one) day
- Guaranteed same effective results even if it rains within hours
- Guaranteed effective: Kills over 200 types of weeds and grasses, roots and all, with just one application
- Guaranteed (we guarantee it)
- Ideal for killing unwanted weeds and grasses throughout your yard. Use along fences; in cracks of walks, drives and patios; and around flower beds, trees and shrubs
- Improved extra strength formula
- Improved formula, completely kills even the toughest weeds and grasses
- Keeps driveways, walkways, landscaping beds, and flower gardens weed-free all season long
- Kills almost all (annual and perennial) weeds, grasses and other unwanted plants
- Kills existing weeds only, no residual activity in soil

**MON 78307 Herbicide**  
**EPA Reg No. 71995-29**

- Kills more weeds in more places.
- Kills over 100 weeds
- Kills (to) the root
- Kills (the toughest weeds and grasses) the root so weeds (they) don't come back
- Kills the root so weeds don't come back
- Kills the roots of (both) broadleaf and grassy weeds
- Kills the weed you see and the root you don't
- Kills unwanted weeds and grasses, roots and all
- Kills weeds in flowerbeds, around trees, shrubs and fences, and on patios, paths, sidewalks, sidewalk cracks, walkways, driveways, and other areas in your yard
- Kills weeds, roots and all
- Lawns and gardens can be reseeded or planted soon after treatment
- Make only what you need
- Multipurpose grass and broadleaf weed control
- NEW!
- Next day (this weekend) results: Begins killing on contact, visible results in 24 hours
- No odor
- No root. No weed. No problem.
- NOW!
- Now a shorter wait for replanting!
- Once it enters the plant, it won't wash off
- One application kills over 200 types of weeds and grasses, roots and all (maximum effectiveness)
- Only Roundup's effectiveness (exclusive formula) won't be washed away by rain or watering 2 hours (30, 45, 60, 90 minutes) after treatment
- Only Roundup's effectiveness (formula) won't be washed away by rain or watering 2 hours ( 1 hour)(30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes) after treatment
- Proven (trusted) performance: Only Roundup [*or insert brand name*] works the first time, every time – and has for 25 years
- Provides maximum control: Kills weeds to the root so they don't ever come back
- Quick kill formula (the toughest)
- Quick-action formula lets you see results 50% faster (two times)
- Ornamental gardens can be reseeded or planted 1 day after treatment
- RainFast in hours (30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes)- enters the plant on contact
- RAIN-PROOF™ (Mistake Proof)
- RAIN-PROOF™ in two hours (30, 45, 60, or 90 minutes; 1 hour; less than 1 hour; less than 60 minutes; less than 30 minutes) (for control that won't wash away)
- Roundup [*or insert brand name*] can be used (almost) anywhere weeds and grasses grow, including patios, walkways, and driveways; along fences; in landscaping beds; or around flowers, shrubs and trees
- (Roundup) [*or insert brand name*] Kills the weed you see and the root others leave behind



**MON 78307 Herbicide**  
**EPA Reg No. 71995-29**

- Roundup's exclusive (patented) formula (technology) kills to the root so weeds don't come back
- Roundup [*or insert brand name*] kills weeds and grasses in – Patios – Driveways – Sidewalks – Ornamental Gardens and other non-lawn areas
- Satisfaction guaranteed or we will gladly refund purchase price
- Satisfaction guaranteed or your money back with proof of purchase
- (See) results in hours
- (See) results in 24 hours
- Speeds absorption to the root for complete kill
- Spray weeds (Use) in flowerbeds, around trees, shrubs and around fences, and on patios, paths, sidewalks, sidewalk cracks, walkways, driveways, and other areas in your yard
- Starts to kill in hours
- Starts working immediately (in hours)
- Stronger
- Transorb technology speeds Roundup to the root to kill even tough weeds
- Twice as fast
- (Use) For Brush Control
- (Use) For General Weed Control: Use along fences, paths, patios, sidewalks and driveways, around trees, shrubs, ornamental plantings, flowerbeds, and buildings, and in brick and gravel walkways.
- Use to trim and edge landscape areas.
- (Use) For Spot Spraying: Use in and around flowerbeds, ornamental trees, shrubs, fences, driveways and walkways
- (Use) For Stumps
- (Use in) Apply with a Big Shot™ Multi-Purpose Sprayer or other tank sprayer, or a (hand held) trigger sprayer
- Visible effects are gradual wilting and yellowing advancing to complete browning and root destruction.
- Water based formula
- Won't wash off (away)
- Works first time, every time
- Works in hours
- Works overnight
- Works only when absorbed by the foliage of weeds

**MON 78307 Herbicide**  
**EPA Reg No. 71995-29**

*[Promotional options]*

- Save up to \$[x] on (your) next purchase
- [X]% Free (More)
- Free weed guide inside
- Free [    ] with this purchase of Roundup concentrate quart
- FREE REFILL
- FREE SAMPLE
- SAMPLE NOT FOR SALE
- Value size



APPENDIX 2 – Packaging Related Claims

NET xx fl oz (qt or gal) (xx mL or L)  
6 fl oz (177 mL)  
6.5 fl oz (192 mL)  
8 fl oz (237 mL)  
13 oz (384 mL)  
16 fl oz (1 pt) (473 mL)  
32 fl oz (1 qt) 946 mL)  
40 fl oz (1.18 L)  
53.7 fl oz (0.42 gal) (1.5 L)  
64 fl oz (1/2 gal) (1.89 L)  
128 fl oz (1 gal) (3.79 L)

[corner flap]

OPEN

Resealable Label for Directions & Precautions

PULL HERE TO OPEN LABEL

PEEL HERE

PEEL OPEN FOR USE DIRECTIONS AND FURTHER INFORMATION

PRESS TO RESEAL

[Net contents] Makes up to 'X' gallons

Makes between 'X' – 'Y' gallons

Mix with water to make 'X' gallons of spray solution

Covers up to 'Z' sq ft

Mix with water to cover up to 'Z' sq ft

[  $X = \text{net contents} \div 3$  ]

[  $Y = \text{net contents} \div 6$  ]

[  $Z = X * 300$  ]

[Pint]

Makes up to 5 gallons

Makes between 2½ - 5 gallons

Mix with water to make 5 gallons of spray solution

Covers up to 1,500 sq ft

Mix with water to cover up to 1,500 sq ft

[Quart]

Makes up to 10 gallons

Makes between 5 – 10 gallons

Mix with water to make 10 gallons of spray solution

Covers up to 3,000 sq ft

Mix with water to cover up to 3,000 sq ft

[0.42 Gallon] Makes up to 18 gallons

**MON 78307 Herbicide**  
**EPA Reg No. 71995-29**

Makes between 9 – 18 gallons  
Mix with water to make 18 gallons of spray solution  
Covers up to 5,400 sq ft  
Mix with water to cover up to 5,400 sq ft

*[Half Gallon]* Makes up to 21 gallons  
Makes between 10 – 21 gallons  
Mix with water to make 21 gallons of spray solution  
Covers up to 6,300 sq ft  
Mix with water to cover up to 6,300 sq ft

*[Gallon]* Makes up to 42 gallons  
Makes between 21 – 42 gallons  
Mix with water to make 42 gallons of spray solution  
Covers up to 12,600 sq ft  
Mix with water to cover up to 12,600 sq ft

New! Larger size, covers up to [ 'Z' ] sq ft

With (the convenient) measuring cup, mixing MON 78307 (controlling weeds around your home) has never been easier

With (the convenient) measuring cup, controlling weeds all around your home has never been this fast and easy



| 3. IS A PUBLIC LAW NECESSARY<br><input type="checkbox"/> YES <input type="checkbox"/> NO                    |   | 4. PETITION NO.                              |                       | 5. RECEIVED BY TEAM<br>NO DAY YR |                                    |
|---|---|--|-----------------------|----------------------------------|------------------------------------|
| 6. METHOD OF SUPPORT<br><input type="checkbox"/> 1A <input type="checkbox"/> 1B <input type="checkbox"/> 1C |   | 7. PRODUCT MANAGER                           |                       | 8. PROJECTED RETURN<br>NO DAY YR |                                    |
| 9. DATE FILED<br>9/24/02  | 10. DATE PUBLICISED<br>AWP                            | 11. ACTION TYPE<br>Renew Marley Label<br>300 |                       | 12. OUTGOING DATE<br>NO DAY YR   |                                    |
| REV<br>TYPE<br>COM  | REVIEW TYPE   | REVIEWER<br>CODE<br>(Initials)               | SIGNATURE OF REVIEWER | COM-<br>MENT<br>CODE             | DATE REVIEW COMPLETED<br>NO DAY YR |
| A   | REVIEWABILITY TEAM                                    |  |                       |                                  |                                    |
| B   | PRODUCT MANAGER TEAM<br>EFFICACY REVIEW               |  |                       |                                  |                                    |
| C   | PRODUCT MANAGER TEAM<br>HUMAN SAFETY REVIEW           |  |                       |                                  |                                    |
| D   | PRODUCT MANAGER TEAM CH-<br>VIRONMENTAL SAFETY REVIEW |  |                       |                                  |                                    |
| E   | PRODUCT MANAGER TEAM<br>REDUCTION REVIEW              |  |                       |                                  |                                    |
| F   | PRODUCT MANAGER                                       |  | UKW                   | NAC                              | 019 2/4 012                        |
| G   | INTERAGENCY REFERRAL                                  |  |                       |                                  |                                    |
| H   | COST-BENEFIT REVIEW                                   |  |                       |                                  |                                    |
| I   | PUBLIC COMMENTS REVIEW                                |  |                       |                                  |                                    |
| J   | CEE BRANCH INSECTICIDE<br>EFFICACY                    |  |                       |                                  |                                    |
| K   | CEE BRANCH HERBICIDE<br>EFFICACY                      |  |                       |                                  |                                    |
| L   | CEE BRANCH FUNGICIDE<br>EFFICACY                      |  |                       |                                  |                                    |
| M   | CEE BRANCH ROSENTRICIDE<br>EFFICACY                   |  |                       |                                  |                                    |
| N   | CEE BRANCH DIMINUTANT<br>EFFICACY                     |  |                       |                                  |                                    |
| O   | CHEMISTRY BRANCH<br>RESIDUE CHEMISTRY                 |  |                       |                                  |                                    |
| P   | CEE BRANCH ENVIRON-<br>MENTAL CHEMISTRY               |  |                       |                                  |                                    |
| Q   | TOXICOLOGY BRANCH<br>HUMAN SAFETY                     |  |                       |                                  |                                    |
| R   | CEE BRANCH ENVIRON-<br>MENTAL SAFETY                  |  |                       |                                  |                                    |
| S   |   |  |                       |                                  |                                    |
| T   |   |  |                       |                                  |                                    |
| PRODUCT MANAGER SIGNATURE   |   |  | TYPE OF RESPONSE      |                                  | CODE                               |





United States  
Environmental Protection Agency  
Washington, DC 20460

☐ Registration  
☒ Amendment  
☐ Other

OPP Identifier Number

295236

## Application for Pesticide – Section I

|   |   |  |
|---|---|--|
| 1. Company/Product Number<br>Monsanto Co./ EPA Registration 71995-29  | 2. EPA Product Manager<br>James A. Tompkins   | 3. Proposed Classification<br><input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted |
| 4. Company/Product (Name)<br>Monsanto Co./ Roundup Weed & Grass Killer Concentrate Plus   | PM #<br>25  |  |
| 5. Name and Address of Applicant (Include ZIP Code)<br>Monsanto Company<br>600 13 <sup>th</sup> St., N.W., Suite 660<br>Washington, DC 20005<br><input type="checkbox"/> Check if this is a new address | 6. <b>Expedited Review.</b> In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to:<br>EPA Reg. No. _____<br>Product Name _____ |  |

## Section – II

|  |  |
|--|--|
| <input checked="" type="checkbox"/> Amendment – Explain below.                 | <input type="checkbox"/> Final printed labels in response to Agency letter dated _____ |
| <input type="checkbox"/> Resubmission in response to Agency letter dated _____ | <input type="checkbox"/> "Me Too" Application.   |
| <input type="checkbox"/> Notification – Explain below.                         | <input type="checkbox"/> Other – Explain below.  |

Explanation: Use additional page(s) if necessary. (For section I and Section II.)  
Submission of Master Label Amendment for EPA Registration No. 71995-29

## Section – III

|   |   |  |                       |   |  |
|---|---|--|-----------------------|---|--|
| 1. Material This Product Will Be Packaged In:   |   |  |                       | 2. Type of Container  |  |
| Child-Resistant Packaging<br><input type="checkbox"/> Yes*<br><input type="checkbox"/> No   | Unit Packaging<br><input type="checkbox"/> Yes<br><input type="checkbox"/> No | Water Soluble Packaging<br><input type="checkbox"/> Yes<br><input type="checkbox"/> No |                       | <input type="checkbox"/> Metal  |  |
| * Certification must be submitted   |   |  |                       | <input type="checkbox"/> Plastic  |  |
|   | If "Yes" Unit Packaging wgt.  | No. per Container  | If "Yes" Package wgt. | No. per Container   | <input type="checkbox"/> Glass           |
|   |   |  |                       |   | <input type="checkbox"/> Paper           |
|   |   |  |                       |   | <input type="checkbox"/> Other (Specify) |
| 3. Location of Net Contents Information<br><input type="checkbox"/> Label <input type="checkbox"/> Container  |   | 4. Size(s) Retail Container  |                       | 5. Location of Label Directions<br><input type="checkbox"/> On Label<br><input type="checkbox"/> On Labeling accompanying product |  |
| 6. Manner in Which Label is Affixed to Product<br><input type="checkbox"/> Lithograph<br><input type="checkbox"/> Paper glued<br><input type="checkbox"/> Stenciled |   | <input type="checkbox"/> Other _____   |                       |   |  |

## Section – IV

|   |  |                                  |  |   |  |
|---|--|----------------------------------|--|---|--|
| 1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)   |  |                                  |  |   |  |
| Name<br>Marsha C. Gray, Ph.D.   |  | Title<br>Registration Manager    |  | Telephone No. (Include Area Code)<br>(202) 383-2878 |  |
| <b>Certification</b><br>I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete.<br>I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law. |  |                                  |  |   | 6. Date Application Received (Stamped)<br> |
| 2. Signature<br>  |  | 3. Title<br>Registration Manager |  |   |  |
| 4. Typed Name<br>Rhonda M. Mannion  |  | 5. Date<br>June 25, 2002         |  |   |  |
|   |  |                                  |  |   |  |



A

MONSANTO



B

MONSANTO COMPANY

600 13TH STREET, N.W.

SUITE 660

WASHINGTON, D.C. 20005

<http://www.monsanto.com>

June 25, 2002

Office of Pesticide Programs (AMEND)  
Document Processing Center (7504C)  
U.S. Environmental Protection Agency  
Crystal Mall #2, Room 266A  
1921 Jefferson Davis Highway  
Arlington, VA 22202

Attention: Mr. James A. Tompkins  
Team Leader (25)

**Subject: Roundup Weed & Grass Killer Concentrate Plus**  
**(EPA Reg. No. 71995-29)**  
Submission of Master Label Amendment

Dear Mr. Tompkins,

Monsanto is submitting (5) copies of the revised Roundup Weed & Grass Killer Concentrate Plus master label, (EPA Reg. No. 71995-29). Revisions to the label text are highlighted, and based on the current approved label for MON 78307 dated January 14, 2002.

The following documents are enclosed with this letter:

- Application for Pesticide (form 8570-1)
- Five (5) copies of the revised master label - unmarked
- One (1) copy of the revised master label - marked  
highlighting revisions to the current approved label

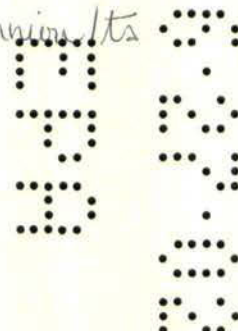
Should you require any additional information or have any questions regarding this label amendment, please contact Dr. Marsha Gray at our Washington office (202)783-2460 or me directly at (314)694-8785 [rmmann@Monsanto.com](mailto:rmmann@Monsanto.com).

Sincerely,

*Rhonda M. Mannion*

Rhonda M. Mannion

cc: V. Walters/EPA  
M. Gray/DC office  
D. Fee-White/A2NC  
B. Kliewer/C3ND  
File Copy



MONSANTO



MONSANTO COMPANY

600 13TH STREET, N.W.

SUITE 660

WASHINGTON, D.C. 20005

<http://www.monsanto.com>

16 July 2002

**Hand Delivered**

Document Processing Center (OTHER)  
Office of Pesticide Programs  
U.S. Environmental Protection Agency  
Room 266A, Crystal Mall 2,  
1921 Jefferson Davis Highway  
Arlington, VA 22202-4501

Attention: Mr. Jim Tompkins (7505C)  
Product Manager (Team 25)

Subject: **Roundup® Weed & Grass Killer Concentrate Plus (EPA Reg. No. 71995-29).  
Submission of Final Printed Labels.**

Dear Mr. Tompkins:

Monsanto is submitting three (3) copies of the *Roundup® Weed & Grass Killer Concentrate Plus* (print plate no. 21208A2-1 and 21208A2-2) final printed label. The label is based upon EPA stamped master label dated 14 January 2002 and is identical to the previous final printed label (print plate no. 21108Z1-1 and 21108Z1-2) with the following exceptions:

- The efficacy claim "Results in 1 day" has been changed to "Results in 24 hours".
- The brand name and registration number were added to the **First Aid Box**.

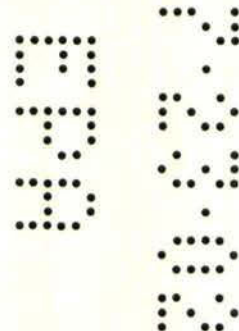
Should you have any questions, please contact Dr. Marsha Gray at our Washington office (202) 783-2460 or me directly at (314) 694-8785 or [rmmann@monsanto.com](mailto:rmmann@monsanto.com).

Sincerely,

Rhonda M. Mannion  
Registration Manager

cc: Marsha Gray / DC Office  
T. Schafer / A2ND  
File copy

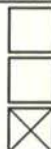
Enclosure







United States  
**Environmental Protection Agency**  
 Washington, DC 20460

**Registration****Amendment****Other**

OPP Identifier Number

**Application for Pesticide – Section I**

|   |   |  |
|---|---|--|
| 1. Company/Product Number<br>EPA Reg. No. 71995-29  | 2. EPA Product Manager<br>Jim Tompkins  | 3. Proposed Classification<br><input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted |
| 4. Company/Product (Name)<br>Roundup Weed & Grass Killer Concentrate Plus   | PM #<br>25  |  |
| 5. Name and Address of Applicant (Include ZIP Code)<br>Monsanto Company, Lawn & Garden Products<br>600 13 <sup>th</sup> St., N.W., Suite 660<br>Washington, DC 20005<br><input type="checkbox"/> Check if this is a new address | 6. <b>Expedited Review.</b> In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to:<br>EPA Reg. No. _____<br>Product Name _____ |  |

**Section – II**

|  |  |
|--|--|
| <input type="checkbox"/> Amendment – Explain below.                      | <input type="checkbox"/> Final printed labels in response to Agency letter dated |
| <input type="checkbox"/> Resubmission in response to Agency letter dated | <input type="checkbox"/> "Me Too" Application.                                   |
| <input type="checkbox"/> Notification – Explain below.                   | <input checked="" type="checkbox"/> Other – Explain below.                       |

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Submission of final printed label.

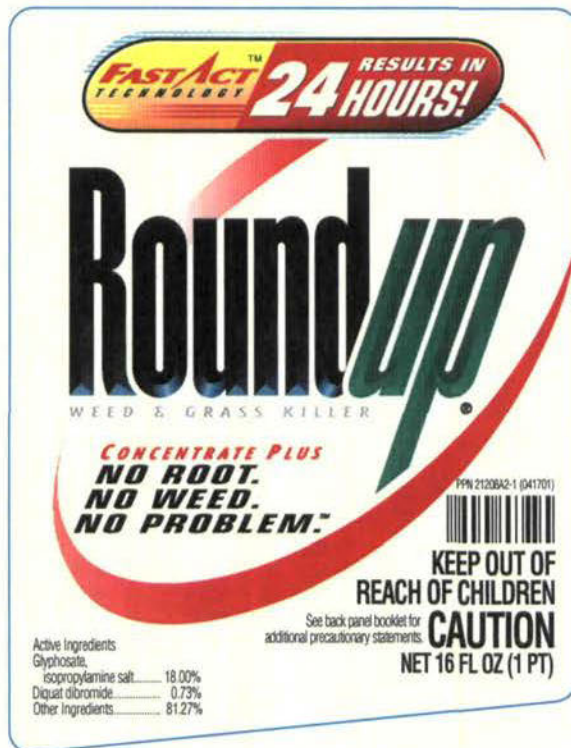
**Section – III**

|   |   |  |  |   |  |
|---|---|--|--|---|--|
| 1. Material This Product Will Be Packaged In:   |   |  |  | 2. Type of Container  |  |
| Child-Resistant Packaging<br><input type="checkbox"/> Yes*<br><input type="checkbox"/> No   | Unit Packaging<br><input type="checkbox"/> Yes<br><input type="checkbox"/> No | Water Soluble Packaging<br><input type="checkbox"/> Yes<br><input type="checkbox"/> No |  | <input type="checkbox"/> Metal  |  |
| * <b>Certification must be submitted</b>  |   |  |  | <input type="checkbox"/> Plastic  |  |
|   |   |  |  | <input type="checkbox"/> Glass  |  |
|   |   |  |  | <input type="checkbox"/> Paper  |  |
|   |   |  |  | <input type="checkbox"/> Other (Specify) <u>Plant Cells</u>   |  |
| 3. Location of Net Contents Information<br><input type="checkbox"/> Label <input type="checkbox"/> Container  |   | 4. Size(s) Retail Container<br>Various   |  | 5. Location of Label Directions<br><input type="checkbox"/> On Label<br><input type="checkbox"/> On Labeling accompanying product |  |
| 6. Manner in Which Label is Affixed to Product<br><input type="checkbox"/> Lithograph<br><input type="checkbox"/> Paper glued<br><input type="checkbox"/> Stenciled |   |  |  | <input type="checkbox"/> Other _____  |  |

**Section – IV**

|   |  |                                  |  |   |  |
|---|--|----------------------------------|--|---|--|
| 1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)   |  |                                  |  |   |  |
| Name<br>Dr. Marsha C. Gray  |  | Title<br>Registration Manager    |  | Telephone No. (Include Area Code)<br>(202) 783-2460 |  |
| <b>Certification</b><br><i>I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.</i> |  |                                  |  | 6. Date Application Received (Stamped)<br>          |  |
| 2. Signature<br>  |  | 3. Title<br>Registration Manager |  |   |  |
| 4. Typed Name<br>Rhonda M. Mannion 314/ 694-8785  |  | 5. Date<br>16 July 2002          |  |   |  |

NOT REVIEWED  
In Accordance with PR Notice 82-2  
Based on Draft Labeling Dated 1/14/02



**FAST ACT™** RESULTS IN **24 HOURS!**

# Roundup

WEED & GRASS KILLER

**CONCENTRATE PLUS**  
**NO ROOT.**  
**NO WEED.**  
**NO PROBLEM.™**

PPN 21206A2-1 (041701)

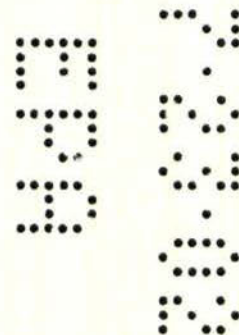
KEEP OUT OF  
REACH OF CHILDREN  
**CAUTION**  
NET 16 FL. OZ. (1 PT)

See back panel booklet for  
additional precautionary statements.

Active Ingredients  
Glyphosate..... 18.00%  
isopropylamine salt..... 0.73%  
Diquat dibromide..... 81.27%  
Other Ingredients.....



file: 30220/front/art  
folder: 30220/syngenta/fast act  
created by customer  
alt: 7-15-02 es  
colors: black, gray 430, green 362, blue 2945, red 485, pantone yellow  
bar code: itf var. -58 mics, 25%





**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**MIXING INSTRUCTIONS**

**Tank Sprayer** (plastic, aluminum, fiberglass, plastic-lined steel or stainless steel). **DO NOT MIX, STORE, OR APPLY IN GALVANIZED OR UNLINED STEEL SPRAYER.**

- Add 6 fl oz (12 Tbs) to 1 gallon of water.
- Spot treat.

1 Tablespoon (Tbs) = 3 teaspoons (tsp)

1 fl oz = 2 Tbs

For easy to kill weeds such as seedlings add 3 fl oz (6 Tbs) to 1 gallon of water. Do not apply with a galvanized or unlined steel (except stainless steel) sprayer or through any irrigation system.

To clean sprayer after use, rinse sprayer and all sprayer parts with water 3 times. Spray rinse water on bare soil or gravel. After cleaning, sprayer may be used for other products.

**User Safety Recommendations**

- Clothing and protective equipment exposed to this product should be washed in detergent and hot water. Such items should be kept and washed separate from other laundry.
- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing immediately if product gets inside; then wash thoroughly and put on clean clothing.

**How To Apply**

- Spray the weeds or grasses you want to kill until thoroughly wet.
- When spot treating weeds around desirable plants, shield plants from drift with a piece of cardboard or plastic. If desirable plants are accidentally sprayed, rinse off immediately with water.

1

**Important:** Do not spray plants or grasses you like - they may die too. Not recommended for spot weed control in lawns since Roundup kills lawn grasses.

**Application Restrictions:** Do not apply this product in a way that will contact any person or pet, either directly or through drift. Only the person applying this product may be in the area during application.

**When To Apply**

- Apply when weeds are actively growing.
- For best results, apply during warm, sunny weather (above 60° F) to accelerate systemic movement from foliage to roots.
- Apply when air is calm to prevent drift to desirable plants.
- **RAIN-PROOF:** Rain or watering 2 hours after application will not wash away effectiveness.

**Additional Tips****To Kill Vines**

- If vines are growing up poles, fences, or tree trunks with mature bark, cut vines to a height of 3 to 4 feet and spray vines thoroughly.
- If vines are climbing shrubs or tree trunks with green bark, cut vines at base and treat as directed for stumps or spray regrowth. If spraying regrowth, shield shrubs and green bark from spray drift with a piece of cardboard or plastic.

**To Kill Stumps**

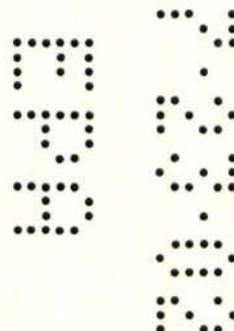
- Cut living stump close to ground.
- Drive 4 to 5 holes into freshly cut stump.
- Immediately pour undiluted product into holes.

**When To Replant**

- All ornamental flowers, trees and shrubs may be planted **2 days after** application.
- Lawn grasses may be planted **7 days after** application.

(Continued)

2



**How It Works**

Roundup Concentrate Plus enters plants through foliage and moves systemically to the roots, killing weeds by stopping the production of a substance found in plants. Any product not absorbed by plants will be deactivated after it hits the soil. Weeds usually yellow and wilt within hours with complete kill in 1 to 2 weeks.

**Satisfaction Guaranteed or your money back with proof of purchase.**

**STORAGE AND DISPOSAL**

**Storage:** Store in original container in a safe place. **Disposal:** Empty Container: Do not reuse container. Put in trash. (Recycle where available.) **Partially Full Container:** Call your local waste disposal service or 1-800-CLEANUP. Never pour product down any drain.

This product is protected by U.S. Patents No. 5,683,968 and No. 5,703,015 and No. 6,063,733 and No. 6,121,199 and No. 6,121,200.

Other patents pending. No license granted under any non-U.S. patent(s).

This is an end-use product. Monsanto does not intend and has not registered it for reformulation or repackaging.

Roundup is a trademark of Monsanto Technology LLC.

**NOTICE:** Buyer assumes all responsibility for safety and use not in accordance with directions.

© 2002 MONSANTO COMPANY

3



**Weed & Grass Killer  
Concentrate Plus**

**OPEN**  
Removable Label  
for Directions &  
Precautions

**PRODUCT FACTS**

**Makes up to 5 Gallons**  
Treats up to 1,500 sq ft (approx. size of 3/4 tennis court)

**KILLS WEEDS**



ALL TYPES OF WEEDS & GRASSES

**WHERE TO USE**

- ✓ On patios, walkways, driveways, gravel or mulch beds
- ✓ Around flowers, shrubs or trees
- ✓ Along fences
- ✓ Other areas of your yard.

**AMOUNT TO USE**

For Best Results - 6 fl oz (12 Tbs) per gallon of water.  
Apply on warm days in bright sunlight.



**Questions, Comments or Medical Information:**  
Call 1-800-246-7219      [www.roundup.com](http://www.roundup.com)



For easy to kill weeds such as seedlings  
add 3 fl oz (6 Tbs) to 1 gallon of water.

Manufactured for  
Monsanto Company, Lawn & Garden Products  
P.O. Box 418  
Marysville, OH 43041  
PPN 21208A2-2 (041601)  
EPA Reg. No. 71995-29  
EPA Est. 239-1A-31, 58996-MD-14  
Superscript is first letter of lot number  
Made in USA



0 70183 50055 0

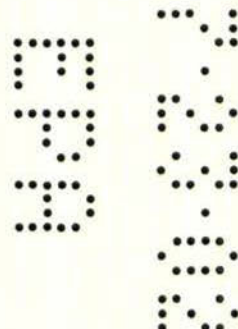
1035



041601

File 8554/Book 3&F/Art  
Folder: 8554/Monsanto/RU weed&grass  
colors: black, pms 3425 green  
bar codes: ITF, 25%, -39 mics / UPCA, 80%, -39 mics

Created: 7-8-02 es  
alt: 7-11-02 bt







041601

**Weed & Grass Killer  
Concentrate Plus****PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS & DOMESTIC ANIMALS**

**CAUTION:** Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

People and pets may enter treated areas after spray has dried.

**FIRST AID****If in  
eyes**

- Hold eye open and rinse slowly and gently for 15-20 minutes.
- Remove contact lenses, if present, after first 5 minutes, then continue rinsing.
- Call a poison control center 1-800-246-7219 or doctor for treatment advice.

**Emergency Medical Information:**

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- You may contact 1-800-246-7219 for emergency medical treatment information.
- This product is identified as Roundup Weed & Grass Killer Concentrate Plus, EPA Reg. No. 71995-29.

**ENVIRONMENTAL HAZARDS:** This product is toxic to aquatic invertebrates. Do not apply directly to any body of water. Do not contaminate water when disposing of equipment washwaters.

(See leaflet for Storage and Disposal Information)



**Questions, Comments or Medical Information:**  
Call 1-800-246-7219 [www.roundup.com](http://www.roundup.com)

Manufactured for Monsanto Company, Lawn & Garden Products

P.O. Box 418, Marysville, OH 43041

EPA Est. 239-1A-3, 58996-MO-1A

Superscript is first letter of lot number

EPA Reg. No. 71995-29

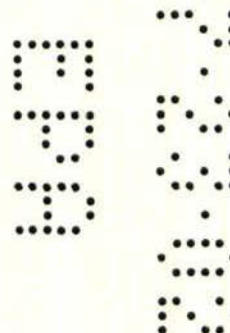
PPN 21208A2-2 (041601)

Made in USA

PRESS TO RESEAL

File 30199/base/art  
Folder: 30199/Monsanto/RU weed & grass  
color: Black  
bar code: itf, 25%, -58

Created: 7-8-02 es  
alt: 7-10-02 bm



MAY 14 2002

Ms. Rhonda M. Mannion  
Registration Manager  
MONSANTO COMPANY  
600 13<sup>th</sup> Street N.W. Suite 660  
Washington, D.C. 20005

Dear Ms. Mannion:

This is in response to your request dated March 27, 2002 to change the primary brand name for **EPA Registration 71995-29** from MON 78307 Herbicide to:

**ROUNDUP® WEED & GRASS KILLER  
CONCENTRATE PLUS**

Your request for the name change is **accepted** and the change will be made to the Agency's records. All future correspondence on this product should reference the new name.

Sincerely yours,

/s/

Sherada D. Hobgood  
Notifications Review Coordinator  
Registration Division (7505C)





United States  
**Environmental Protection Agency**  
 Washington, DC 20460

☐ Registration  
☐ Amendment  
☒ Other

OPP Identifier Number

**Application for Pesticide – Section I**

|   |   |  |
|---|---|--|
| 1. Company/Product Number<br>71995-29   | 2. EPA Product Manager<br>Jim Tompkins  | 3. Proposed Classification<br><input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted |
| 4. Company/Product (Name)<br>MON 78307 Herbicide  | PM #<br>25  |  |
| 5. Name and Address of Applicant (Include ZIP Code)<br>Monsanto Company<br>600 13 <sup>th</sup> St., N.W., Suite 660<br>Washington, DC 20005<br><input type="checkbox"/> Check if this is a new address | 6. <b>Expedited Review.</b> In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to:<br>EPA Reg. No. _____<br>Product Name <u>MAY 1 4 2002</u> |  |

**Section – II**

|  |  |
|--|--|
| <input type="checkbox"/> Amendment – Explain below.                            | <input checked="" type="checkbox"/> Final printed labels in response to Agency letter dated <b>14 January 2002</b> |
| <input type="checkbox"/> Resubmission in response to Agency letter dated _____ | <input type="checkbox"/> "Me Too" Application.   |
| <input checked="" type="checkbox"/> Notification – Explain below.              | <input type="checkbox"/> Other – Explain below.  |

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Submission of final printed labels and notification of change in primary brand name.

This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

**Section – III**

|  |   |  |   |   |  |
|--|---|--|---|---|--|
| 1. Material This Product Will Be Packaged In:  |   |  |   | 2. Type of Container  |  |
| Child-Resistant Packaging<br><input type="checkbox"/> Yes*<br><input type="checkbox"/> No  | Unit Packaging<br><input type="checkbox"/> Yes<br><input type="checkbox"/> No | Water Soluble Packaging<br><input type="checkbox"/> Yes<br><input type="checkbox"/> No | <input type="checkbox"/> Metal<br><input type="checkbox"/> Plastic<br><input type="checkbox"/> Glass<br><input type="checkbox"/> Paper<br><input type="checkbox"/> Other (Specify) <u>Plant Cells</u> |   |  |
| * Certification must be submitted  |   | If "Yes" Unit Packaging wgt. No. per Container   | If "Yes" Package wgt. No. per Container   |   |  |
| 3. Location of Net Contents Information<br><input type="checkbox"/> Label <input type="checkbox"/> Container   |   | 4. Size(s) Retail Container<br>Various   |   | 5. Location of Label Directions<br><input type="checkbox"/> On Label<br><input type="checkbox"/> On Labeling accompanying product |  |
| 6. Manner in Which Label is Affixed to Product<br><input type="checkbox"/> Lithograph <input type="checkbox"/> Other _____<br><input type="checkbox"/> Paper glued<br><input type="checkbox"/> Stenciled |   |  |   |   |  |

**Section – IV**

|  |                                  |   |  |
|--|----------------------------------|---|--|
| 1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)  |                                  |   |  |
| Name<br>Dr. Marsha C. Gray   | Title<br>Registration Manager    | Telephone No. (Include Area Code)<br>(202) 783-2460 |  |
| <b>Certification</b><br>I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law. |                                  | 6. Date Application Received (Stamped)<br>          |  |
| 2. Signature<br>   | 3. Title<br>Registration Manager |   |  |
| 4. Typed Name<br>Rhonda M. Mannion 314/ 694-8785   | 5. Date<br>27 March 2002         |   |  |

NOTIFICATION  
MAY 14 2002

**NEW!** **FastAct** TECHNOLOGY **RESULTS IN 1 DAY!**

# Roundup

WEED & GRASS KILLER

**CONCENTRATE PLUS**

**NO ROOT.  
NO WEED.  
NO PROBLEM.**

PPN 21208Z1-1 (041700)

KEEP OUT OF  
REACH OF CHILDREN  
**CAUTION**

See back panel booklet for  
additional precautionary statements.

NET 16 FL OZ (1 PT)

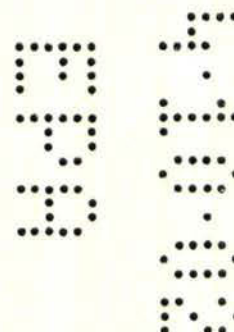
Active Ingredients  
Glyphosate, isopropylamine salt ..... 18.00%  
Diquat Dibromide ..... 0.73%  
Other Ingredients ..... 81.27%



041700

File 29390/front label  
Folder: 29390/Monsanto/21208Z1-1  
color: black, pms 362, pms 430, pms 485, pms 2945, pan yellow  
bar code: itf, 25%, -58

Created: 2-1-02 bm  
alt: 3-04-02 cn





**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**MIXING INSTRUCTIONS**

**Tank Sprayer** (plastic, aluminum, fiberglass, plastic-lined steel or stainless steel) **Do not mix, store, or apply in a galvanized or unlined steel sprayer.**

- Add 6 fl oz (12 Tbs) to 1 gallon of water.
- Spot treat.

1 Tablespoon (Tbs) = 3 teaspoons (tsp)

1 fl oz = 2 Tbs

For easy to kill weeds such as seedlings add 3 fl oz (6 Tbs) to 1 gallon of water. To clean sprayer after use, rinse sprayer and all sprayer parts with water 3 times. Spray rinse water on bare soil or gravel. After cleaning, sprayer may be used for other products.

**User Safety Recommendation**

- Clothing and protective equipment exposed to this product should be washed in detergent and hot water. Such items should be kept and washed separate from other laundry.
- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing immediately if product gets inside; then wash thoroughly and put on clean clothing.

**How To Apply**

- Spray the weeds or grasses you want to kill until thoroughly wet.
- When spot treating weeds around desirable plants, shield plants from drift with a piece of cardboard or plastic. If desirable plants are accidentally sprayed, rinse off immediately with water.

1

**Important:** Do not spray plants or grasses you like - they may die too. Not recommended for spot weed control in lawns since Roundup kills lawn grasses.

**Application Restrictions:** Do not apply this product in a way that will contact any person or pet, either directly or through drift. Only the person applying this product may be in the area during application.

**When To Apply**

- Apply when weeds are actively growing. Use anytime weeds and grasses are actively growing.
- For best results, apply during warm, sunny weather (above 60°F) to accelerate systemic movement from foliage to roots.
- Apply when air is calm to prevent drift to desirable plants.
- RAIN-PROOF: Rain or watering 2 hours after application will not wash away effectiveness.

**Additional Tips****To Kill Vines**

- If vines are growing up poles, fences, or tree trunks with mature bark, cut vines to a height of 3 to 4 ft and spray vines thoroughly.
- If vines are climbing shrubs, or tree trunks with green bark, cut vines at base and treat as directed for stumps or spray regrowth. If spraying regrowth, shield shrubs and green bark from spray drift with a piece of cardboard or plastic.

**To Kill Stumps**

- Cut living stump close to ground.
- Drive 4 to 5 holes into freshly cut stump.
- Immediately pour undiluted product into holes.

**When To Replant**

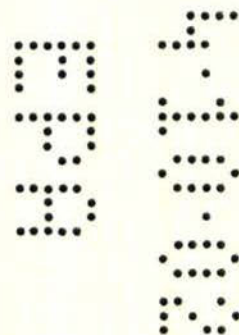
- All ornamental flowers, trees and shrubs may be planted **2 days after** application.
- Lawn grasses may be planted **7 days after** application.

(Continued)

2

File 8303/Book 1&2/Art  
Folder: 8303/Monsanto/21208Z1-2  
color: Black (White Copy In Black Box)

Created: 1-31-02 bm  
alt: 2-5-02 bm



**How It Works**

Roundup Concentrate Plus enters plants through foliage and moves systemically to the roots, killing weeds by stopping the production of a substance found in plants. Any product not absorbed by plants will be deactivated after it hits the soil. Weeds usually yellow and wilt within hours with complete kill in 1 to 2 weeks.

**Satisfaction Guaranteed or your money back with proof of purchase.**

**STORAGE AND DISPOSAL**

**Storage:** Store in original container in a safe place. **Disposal:** Empty Container: Do not reuse container. Put in trash. (Recycle where available.) **Partially Full Container:** Call your local waste disposal service or 1-800-CLEANUP. Never pour product down any drain.

This product is protected by U.S. Patents No. 5,683,958 and No. 5,703,015 and No. 6,063,733 and No. 6,121,199 and No. 6,121,200.

Other patents pending. No license granted under any non-U.S. patent(s).

This is an end-use product. Monsanto does not intend and has not registered it for reformulation or repackaging.

Roundup is a trademark of Monsanto Technology LLC.

**NOTICE:** Buyer assumes all responsibility for safety and use not in accordance with directions.

© 2002 MONSANTO COMPANY

3



**Weed & Grass Killer  
Concentrate Plus**

OPEN  
Removable Label  
for Directions &  
Precautions

**PRODUCT FACTS**

**Makes up to 5 Gallons**  
Treats up to 1,500 sq ft (approx. size of ¼ tennis court)

**KILLS WEEDS**



ALL TYPES OF WEEDS & GRASSES

**WHERE TO USE**

- ✓ On patios, walkways, driveways, gravel or mulch beds
- ✓ Around flowers, shrubs or trees
- ✓ Along fences
- ✓ Other areas of your yard.

**AMOUNT TO USE**

**For Best Results** – 6 fl oz (12 Tbs) per gallon of water  
Apply on warm days in bright sunlight.



**Questions, Comments or Medical Information:**  
Call 1-888-ROUNDUP [www.roundup.com](http://www.roundup.com)

For easy to kill weeds such as seedlings add 3 fl oz (6 Tbs) to 1 gallon of water.

Manufactured for  
Monsanto Company, Lawn & Garden Products  
P.O. Box 1750  
Columbus, OH 43216-1750  
PPN 2120821-2 (041600)  
EPA Reg. No. 71995-29  
EPA Est. 239-1A-3, 58996-MO-1A  
Superscript is first letter of lot number  
Made in USA



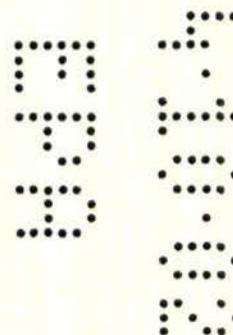
1025



041600

File 8303/Book 3&F/Art  
Folder: 8303/Monsanto/21208Z1-2  
colors: black, pms 3425 green  
bar codes: ITF, 25%, -39 mics / UPCA, 80%, -39 mics


Created: 1-31-02 bm  
alt: 2-5-02 bm







041600

**Weed & Grass Killer  
Concentrate Plus****PRECAUTIONARY STATEMENTS****HAZARDS TO HUMANS & DOMESTIC ANIMALS****CAUTION:** Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling. People and pets may enter treated areas after spray has dried.**FIRST AID****If in  
eyes**

- Hold eye open and rinse slowly and gently for 15-20 minutes.
- Remove contact lenses, if present, after first 5 minutes, then continue rinsing.
- Call a poison control center 1-888-768-6387 or doctor for treatment advice.

**Emergency Medical Information:**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may contact 1-888-768-6387 for emergency medical treatment information.

**ENVIRONMENTAL HAZARDS:** This product is toxic to aquatic invertebrates. Do not apply directly to any body of water. Do not contaminate water when disposing of equipment washwaters.

(See leaflet for Storage and Disposal Information)

**Questions, Comments or Medical Information:**  
**Call 1-888-ROUNDUP** [www.roundup.com](http://www.roundup.com)

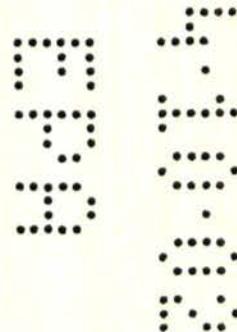
Manufactured for Monsanto Company  
Lawn & Garden Products  
P.O. Box 1750 Columbus, OH 43216-1750  
EPA Reg. No. 71995-29 (041600)  
EPA Est. 239-1A-3<sup>1</sup>, 58996-MO-1<sup>4</sup>  
Superscript is first letter of lot number

PPN 21208Z1-2  
Made in USA

PRESS TO RESEAL

File 29391/base/art  
Folder: 29391/Monsanto/21208Z1-2  
color: Black  
bar code: itf, 25%, -58

Created: 1-31-02 bm  
alt: 2-5-02 bm



NOTIFICATION  
MAY 14 2002

**NEW!** **Fast Act** TECHNOLOGY **RESULTS IN 1 DAY!**

# Roundup

WEED & GRASS KILLER

**CONCENTRATE PLUS**

**NO ROOT.  
NO WEED.  
NO PROBLEM.**

PPN 21208Z1-1 (041700)

KEEP OUT OF  
REACH OF CHILDREN  
**CAUTION**

See back panel booklet for  
additional precautionary statements.

NET 16 FL OZ (1 PT)

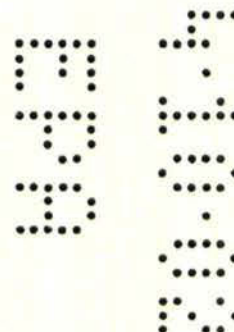
Active Ingredients  
Glyphosate, isopropylamine salt ..... 18.00%  
Diquat Dibromide ..... 0.73%  
Other Ingredients ..... 81.27%



041700

File 29390/front label  
Folder: 29390/Monsanto/21208Z1-1  
color: black, pms 362, pms 430, pms 485, pms 2945, pan yellow  
bar code: itf, 25%, -58

Created: 2-1-02 bm  
alt: 3-04-02 cn





**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**MIXING INSTRUCTIONS**

**Tank Sprayer** (plastic, aluminum, fiberglass, plastic-lined steel or stainless steel) **Do not mix, store, or apply in a galvanized or unlined steel sprayer.**

- Add 6 fl oz (12 Tbs) to 1 gallon of water.
- Spot treat.

1 Tablespoon (Tbs) = 3 teaspoons (tsp)

1 fl oz = 2 Tbs

For easy to kill weeds such as seedlings add 3 fl oz (6 Tbs) to 1 gallon of water.

To clean sprayer after use, rinse sprayer and all sprayer parts with water 3 times. Spray rinse water on bare soil or gravel. After cleaning, sprayer may be used for other products.

**User Safety Recommendation**

- Clothing and protective equipment exposed to this product should be washed in detergent and hot water. Such items should be kept and washed separate from other laundry.
- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing immediately if product gets inside; then wash thoroughly and put on clean clothing.

**How To Apply**

- Spray the weeds or grasses you want to kill until thoroughly wet.
- When spot treating weeds around desirable plants, shield plants from drift with a piece of cardboard or plastic. If desirable plants are accidentally sprayed, rinse off immediately with water.

1

**Important:** Do not spray plants or grasses you like - they may die too. Not recommended for spot weed control in lawns since Roundup kills lawn grasses.

**Application Restrictions:** Do not apply this product in a way that will contact any person or pet, either directly or through drift. Only the person applying this product may be in the area during application.

**When To Apply**

- Apply when weeds are actively growing. Use anytime weeds and grasses are actively growing.
- For best results, apply during warm, sunny weather (above 60°F) to accelerate systemic movement from foliage to roots.
- Apply when air is calm to prevent drift to desirable plants.
- **RAIN-PROOF:** Rain or watering 2 hours after application will not wash away effectiveness.

**Additional Tips****To Kill Vines**

- If vines are growing up poles, fences, or tree trunks with mature bark, cut vines to a height of 3 to 4 ft and spray vines thoroughly.
- If vines are climbing shrubs, or tree trunks with green bark, cut vines at base and treat as directed for stumps or spray regrowth. If spraying regrowth, shield shrubs and green bark from spray drift with a piece of cardboard or plastic.

**To Kill Stumps**

- Cut living stump close to ground.
- Drive 4 to 5 holes into freshly cut stump.
- Immediately pour undiluted product into holes.

**When To Replant**

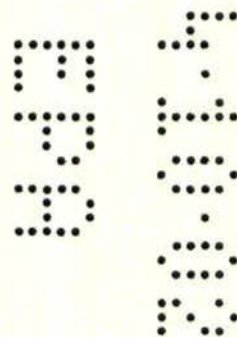
- All ornamental flowers, trees and shrubs may be planted **2 days after** application.
- Lawn grasses may be planted **7 days after** application.

(Continued)

2

File 8303/Book 1&2/Art  
Folder: 8303/Monsanto/21208Z1-2  
color: Black (White Copy In Black Box)

Created: 1-31-02 bm  
alt: 2-5-02 bm



**How It Works**

Roundup Concentrate Plus enters plants through foliage and moves systemically to the roots, killing weeds by stopping the production of a substance found in plants. Any product not absorbed by plants will be deactivated after it hits the soil. Weeds usually yellow and wilt within hours with complete kill in 1 to 2 weeks.

**Satisfaction Guaranteed or your money back with proof of purchase.**

**STORAGE AND DISPOSAL**

**Storage:** Store in original container in a safe place. **Disposal:** Empty Container: Do not reuse container. Put in trash. (Recycle where available.) **Partially Full Container:** Call your local waste disposal service or 1-800-CLEANUP. Never pour product down any drain.

This product is protected by U.S. Patents No. 5,683,958 and No. 5,703,015 and No. 6,063,733 and No. 6,121,199 and No. 6,121,200.

Other patents pending. No license granted under any non-U.S. patent(s).

This is an end-use product. Monsanto does not intend and has not registered it for reformulation or repackaging.

Roundup is a trademark of Monsanto Technology LLC.

**NOTICE:** Buyer assumes all responsibility for safety and use not in accordance with directions.

© 2002 MONSANTO COMPANY

3



**Weed & Grass Killer  
Concentrate Plus**

OPEN  
Removable Label  
for Directions &  
Precautions

**PRODUCT FACTS**

**Makes up to 5 Gallons**  
Treats up to 1,500 sq ft (approx. size of 3/4 tennis court)

**KILLS WEEDS**



ALL TYPES OF WEEDS & GRASSES

**WHERE TO USE**

- ✓ On patios, walkways, driveways, gravel or mulch beds
- ✓ Around flowers, shrubs or trees
- ✓ Along fences
- ✓ Other areas of your yard.

**AMOUNT TO USE** For Best Results – 6 fl oz (12 Tbs) per gallon of water  
Apply on warm days in bright sunlight.



**Questions, Comments or Medical Information:**  
Call 1-888-ROUNDUP

[www.roundup.com](http://www.roundup.com)

For easy to kill weeds such as seedlings add 3 fl oz (6 Tbs) to 1 gallon of water.

Manufactured for  
Monsanto Company, Lawn & Garden Products  
P.O. Box 1750  
Columbus, OH 43216-1750  
PPN 21208Z1-2 (041600)  
EPA Reg. No. 71995-29  
EPA Est. 239-1A-3, 58995-MO-1<sup>A</sup>  
Superscript is first letter of lot number  
Made in USA



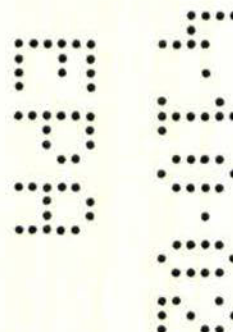
041600

0 70183 50055 0

1025

File 8303/Book 3&F/Art  
Folder: 8303/Monsanto/21208Z1-2  
colors: black, prms 3425 green  
bar codes: ITF, 25%, -39 mics / UPCA, 80%, -39 mics

Created: 1-31-02 bm  
alt: 2-5-02 bm







041600

**Weed & Grass Killer  
Concentrate Plus****PRECAUTIONARY STATEMENTS****HAZARDS TO HUMANS & DOMESTIC ANIMALS**

**CAUTION:** Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.



People and pets may enter treated areas after spray has dried.

**FIRST AID****If in  
eyes**

- Hold eye open and rinse slowly and gently for 15-20 minutes.
- Remove contact lenses, if present, after first 5 minutes, then continue rinsing.
- Call a poison control center 1-888-768-6387 or doctor for treatment advice.

**Emergency Medical Information:**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may contact 1-888-768-6387 for emergency medical treatment information.

**ENVIRONMENTAL HAZARDS:** This product is toxic to aquatic invertebrates. Do not apply directly to any body of water. Do not contaminate water when disposing of equipment washwaters.

(See leaflet for Storage and Disposal Information)



**Questions, Comments or Medical Information:**  
Call 1-888-ROUNDUP [www.roundup.com](http://www.roundup.com)

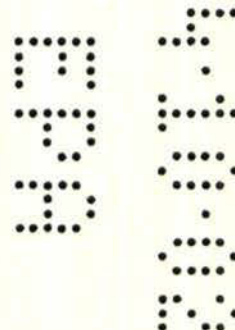
Manufactured for Monsanto Company  
Lawn & Garden Products  
P.O. Box 1750 Columbus, OH 43216-1750  
EPA Reg. No. 71995-29 (041600)  
EPA Est. 239-1A-3/ 58996-MO-1<sup>A</sup>  
Superscript is first letter of lot number

PPN 21208Z1-2  
Made in USA

PRESS TO RESEAL

File 29391/base/art  
Folder: 29391/Monsanto/21208Z1-2  
color: Black  
bar code: itf, 25%, -58

Created: 1-31-02 bm  
alt: 2-5-02 bm





## MONSANTO COMPANY

600 13TH STREET, N.W.

SUITE 660

WASHINGTON, D.C. 20005

<http://www.monsanto.com>

27 March 2002

**Hand Delivered**

Document Processing Center (NOTIF)  
Office of Pesticide Programs  
U.S. Environmental Protection Agency  
Room 266A, Crystal Mall 2,  
1921 Jefferson Davis Highway  
Arlington, VA 22202-4501

Attention: Mr. Jim Tompkins  
Product Manager (Team 25)

**Subject: MON 78307 Herbicide (EPA Reg. No. 71995-29).  
Submission of Final Printed Label, Notification of Change in Primary  
Brand Name, and Notification of Label Text Changes.**

Dear Mr. Tompkins:

Monsanto is herein submitting final printed labeling for MON 78307 Herbicide, which was registered by the Agency on 31 October 2001 under EPA Registration Number 71995-29. MON 78307 will be commercialized under the primary brand name Roundup® Weed & Grass Killer Concentrate Plus.

Enclosed are three (3) copies of the final printed label for Roundup® Weed & Grass Killer Concentrate Plus (print plate nos. 21108Z1-1 and 21108Z1-2). The text of the final printed label is consistent with the EPA stamped master label dated 14 January 2002 with the following exceptions:

- The *Disposal* section has been modified to add the statement "Do not reuse container" per PR notice 2001-6.
- The *Product Facts* box has been modified to include the following statement "Apply on warm days in bright sunlight". This text is essentially the same as that approved in the *When To Apply* section, "...apply during warm, sunny weather..."

Should you have any questions, please contact Dr. Marsha Gray at our Washington office (202) 783-2460 or me directly at (314) 694-8785.

Sincerely,

Rhonda M. Mannion  
Registration Manager

cc: M. Gray / DC Office  
V. Walters / EPA  
File copy





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

FEB/06/2002

**MEMORANDUM**

Subject: MON 78307 Herbicide  
EPA Reg. No. 71995-29  
DP Barcode: D279044  
Case No: 070602  
PC Code: 103601 Glyphosate, isopropylamine salt  
032201 Diquat dibromide

From: Tracy Keigwin *TK SK*  
Technical Review Branch  
Registration Division (7505C)

To: Vickie Walters, PM Team 25  
Herbicide Branch  
Registration Division (7505C)

Applicant: Monsanto Co.  
800 N. Lindbergh Blvd.  
St. Louis, MO 63141

**FORMULATION FROM LABEL:**

| <u>Active Ingredient(s):</u>    | <u>% by wt.</u> |
|---------------------------------|-----------------|
| Glyphosate, isopropylamine salt | 18.00           |
| Diquat dibromide                | 00.73           |
| <u>Inert Ingredient(s)</u>      | <u>81.27</u>    |
| Total:                          | 100.00          |

**ACTION REQUESTED:** PM requests review of acute inhalation study to determine if (new) tox category IV warranted.

**BACKGROUND:** Monsanto Company has submitted a new acute inhalation study (MRID 45461201) in an effort to lower their acute inhalation category from III to IV. The test substance in the study was MON 78567, which is identical to MON 78307 except that the percent glyphosate in MON 78567 is slightly higher.

The study was conducted at Springborn Laboratories, Inc., Spencerville, Ohio.

**RECOMMENDATIONS:** The acute inhalation study has been reviewed and is acceptable. This study may replace the previous acute inhalation study that was submitted in support of this product. We accept the change in inhalation from acute toxicity category III to acute toxicity category IV.

The acute toxicity profile for MON 78307, EPA File Symbol 71995-29, is as follows:

|                           |     |            |               |
|---------------------------|-----|------------|---------------|
| acute oral toxicity       | IV  | Acceptable | MRID454106-02 |
| acute dermal toxicity     | IV  | Acceptable | MRID454106-03 |
| acute inhalation toxicity | IV  | Acceptable | MRID454612-01 |
| primary eye irritation    | III | Acceptable | MRID454106-05 |
| primary skin irritation   | IV  | Acceptable | MRID454106-06 |
| dermal sensitization      | No  | Acceptable | MRID454106-07 |

**LABELING:** Based on the toxicity profile above, the following are the precautionary and first aid statements for this product as obtained from the Label Review System.

### PRECAUTIONARY STATEMENTS

#### Hazards to Humans and Domestic Animals:

#### CAUTION

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

#### FIRST AID

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center for treatment advice.



**HOT LINE NUMBER**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-xxx-xxxx for emergency medical treatment information.

## DATA EVALUATION RECORD

**STUDY TYPE:** ACUTE INHALATION TOXICITY TESTING (870.1300 formerly §81-3)

**Product Manager:** 25      **Reviewer:** Tracy Keigwin

**TEST MATERIAL PURITY:** MON 78567; (0.73% diquat dibromide, 19.01% glyphosate acid (a.e.) [25.6% isopropylamine salt of glyphosate]; Lot No. GLP-0102-10951-F; pale amber liquid)

**CITATION :** Bonnette, Kimberly L. (2001) An acute nose-only inhalation toxicity study in rats with MON 78567. Springborn Laboratories, Inc., Spencerville, Ohio. SLI Study Number 3044.832. June 21, 2001. MRID 45461201. Unpublished

**SPONSOR:** Monsanto Company, 800 N. Lindbergh Blvd. St. Louis, MO 63141

**EXECUTIVE SUMMARY:** This study assessed the acute inhalation toxicity of MON 78567 in Sprague Dawley rats. Test subjects were exposed to four hour nose only inhalation concentrations of 2.40 mg/L. Ten male and 10 female Sprague-Dawley®SD® rats were used in the study (males 10-12 weeks, weight 301-352g, females 10-12 weeks, weight 214-233g. The source for all animals was Harlan Sprague Dawley, Inc.) On day "0" selected animals were placed in nose-only exposure tubes and the tubes inserted into a Unifab 100L nose-only inhalation chamber. Animals were observed for clinical abnormalities during exposure, twice post exposure on day "0", and daily thereafter. Health and mortality checks were performed twice daily. Animals were weighed prior to dosing on day "0" and again on days "7" and "14". Dead animals were also weighed. Necropsy examination was performed on the selected animals either at time of death or scheduled euthanasia (day 14).

The acute Inhalation LC<sub>50</sub> for MON 78567 is greater than 2.40 mg/L in both sexes (observed).

MON 78567 is classified as Tox Category IV for acute inhalation based on the observed LC<sub>50</sub> in both sexes.



All mortality occurred by day 6 of the study. One male and 1 female died during the study. Clinical abnormalities noted in the test animals include urine stain, breathing abnormalities (congested breathing, labored breathing, gasping, rales, shallow breathing), decreased defecation/food consumption, hunched posture, apparent hypothermia, dehydration, rough haircoat, unkempt appearance, decreased activity, dark material around the facial area, eyelids partially closed, nasal discharge, slight to moderate hairloss and scabbing in mouth/nose/head region. Body weight loss was noted in all surviving animals during the 0 - 7 day study interval, and body weight gain noted for all surviving animals during the 7 - 14 day study interval. In spite of the gain, only 2 males and 2 females ultimately exceeded their initial body weight by day 14.

The most significant internal findings were observed in the animals that died. These included abnormal contents in the digestive tract and dark red lungs. "One surviving animal exhibited a distended digestive tract at study termination".

This study is classified as **Acceptable** (870.1300) and satisfies the guideline requirement for an acute inhalation study in the rat.

**COMPLIANCE:** Signed and dated GLP, Quality Assurance and (No)Confidentiality statements were provided

## RESULTS

| Exposure Concentration (mg/L) | Number of Deaths/Number Tested |         |          |
|-------------------------------|--------------------------------|---------|----------|
|                               | Males                          | Females | Combined |
| 2.40                          | 1/5                            | 1/5     | 2/10     |

Deaths occurred by study day 6

## Chamber atmosphere

| Exposure Concentration (mg/L) | MMAD ( $\mu\text{m}$ ) | GSD       |
|-------------------------------|------------------------|-----------|
| 2.40                          | 2.7                    | $\pm 2.4$ |

**Chamber Environment (nose only)**

|                           | Analytical Exposure Level (mg/L) |
|---------------------------|----------------------------------|
| Chamber volume (L)        | 100                              |
| Mean Airflow Rate (L/min) | 29.5                             |
| Temperature (°F)          | 74-75                            |
| Relative Humidity (%)     | 49-60                            |

**OBSERVATIONS:** All mortality occurred by day 6 of the study. One male and 1 female died during the study. Clinical abnormalities noted in the test animals include urine stain, breathing abnormalities (congested breathing, labored breathing, gasping, rales, shallow breathing), decreased defecation/food consumption, hunched posture, apparent hypothermia, dehydration, rough haircoat, unkempt appearance, decreased activity, dark material around the facial area, eyelids partially closed, nasal discharge, slight to moderate hairloss and scabbing in mouth/nose/head region. Body weight loss was noted in all surviving animals during the 0 - 7 day study interval, and body weight gain noted during the 7 - 14 day interval. In spite of the gain, only 2 males and 2 females ultimately exceeded their initial body weight by day 14.

**GROSS NECROPSY:** The most significant internal findings were observed in the animals that died. These included abnormal contents in the digestive tract and dark red lungs. "One surviving animal exhibited a distended digestive tract at study termination".



**ACUTE TOX ONE-LINERS**

1. **DP BARCODE:** D279044
2. **PC CODE:** 103601, 032201
3. **CURRENT DATE:** 06/FEB/2002
4. **TEST MATERIAL:** MON 78567; (0.73% diquat dibromide, 19.01% glyphosate acid (a.e.) [25.6% isopropylamine salt of glyphosate]; Lot No. GLP-0102-10951-F; pale amber liquid

| Study/Species/Lab<br>Study # /Date   | MRID      | Results  | Tox.<br>Cat. | Core<br>Grade |
|--|-----------|--|--------------|---------------|
| Acute inhalation toxicity/rat<br>Springborn Laboratories, Inc.<br>3044.832/6-21-01 | 454612-01 | LC <sub>50</sub> > 2.40 mg/L (males<br>females combined) | IV           | A             |

Core Grade Key: A =Acceptable, S = Supplementary, U = Unacceptable, V = Self Validated



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

JAN 14 2002

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

Ms. Rhonda M. Mannion  
Monsanto Company  
600 13<sup>th</sup> Street, N.W. Suite 660  
Washington, DC 20005

Dear Ms. Mannion:

Subject: MON 78307 Herbicide (Change Category for Acute Inhalation)  
EPA Registration No. 71995-29  
Resubmission Dated December 20, 2001

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended is acceptable. Please submit three (3) copies of your final printed labeling before you release the product for shipment. A stamped copy of labeling is enclosed for your records.

Sincerely,

*James A. Tompkins*  
James A. Tompkins  
Product Manager 25  
Herbicide Branch  
Registration Division (7505C)



**MON 78307 Herbicide**  
**EPA Reg No. 71995-29**

*[Editorial Notes: Bracketed text [ ] is for internal use or serves as a 'place holder' for graphics. Parenthetical text ( ) denotes optional wording.]*

*[Refer to APPENDIX 1 for consolidated list of label claims.]*

*[Refer to APPENDIX 2 for packaging related claims/instructions]*

**MON 78307 Herbicide**

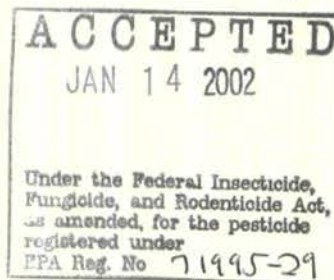
Alternate Brand Name : Roundup Weed & Grass Killer Fast Act Concentrate<sub>2</sub>

**Active Ingredient**

Glyphosate, isopropylamine salt ..... 18.0 %

Diquat dibromide..... 0.73 %

Other Ingredients .....81.27 %



**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

See back panel booklet for additional precautionary statements.

(Read precautions and directions on back label.)

NET [xxx]

**MON 78307 Herbicide**  
**EPA Reg No. 71995-29**

|  |  |
|--|--|
| <b>Product Facts</b>   |  |
| Treats up to xx sq ft (approx. size of XX tennis courts)<br>[ When calculating coverage, one gallon treats 300 sq ft and a tennis court is 2,106 sq ft.]           |  |
| <b>KILLS WEEDS</b>   | [Illustrate grassy, broadleaf and woody weeds]<br>ALL TYPES OF WEEDS & GRASSES   |
| <b>WHERE TO USE</b>  | <ul style="list-style-type: none"><li>• On patios, walkways, driveways, gravel or mulch beds</li><li>• Around flowers, shrubs or trees</li><li>• Along fences</li><li>• Other areas in your yard</li></ul> |
| <b>AMOUNT TO USE</b>   | <b>For best results</b><br>• 6 fl oz (12 Tbs) per gallon of water  |
| [phone icon] <b>Questions, Comments or Medical Information</b><br>call 1-800-225-2883 <a href="http://www.roundup.com">www.roundup.com</a><br>(call 1-888-Roundup) |  |

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**MIXING INSTRUCTIONS**

[optional tank sprayer illustration]

**Tank Sprayer** (plastic, aluminum, fiberglass, plastic-lined steel or stainless steel. **(Do not (mix, store or) apply with (in) a galvanized or unlined steel sprayer.)**

- (For tough established weeds / For best results,) add 6 fl oz (12 Tbs) to 1 gallon of water.
- (For easy to kill weeds such as small seedlings, add 3 fl oz ( 6 Tbs) to 1 gallon of water.)
- (Spot treat)

1 Tablespoon (Tbs) = 3 teaspoons (tsp)

1 fl oz = 2 Tbs

Do not (mix, store or) apply with (in) a galvanized or unlined steel (except stainless steel) sprayer, or through any irrigation system.

To clean sprayer after use, rinse sprayer and all sprayer parts with water 3 times. Spray rinse water on bare soil or gravel. After cleaning, sprayer may be used for other products.



**USER SAFETY RECOMMENDATIONS** *[optional illustration]*

- Clothing and protective equipment exposed to this product should be washed in detergent and hot water. Such items should be kept and washed separate from other laundry.
- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing immediately if product gets inside; then wash thoroughly and put on clean clothing.

**HOW TO APPLY** *[optional illustration]*

- Spray the weeds or grasses you want to kill until thoroughly wet.
- When spot treating weeds around desirable plants, shield plants from drift with a sheet (piece) of cardboard or plastic. If desirable plants are accidentally sprayed, rinse off immediately with water.

**IMPORTANT:** Do not spray plants or grasses you like - they may die too. Not recommended for spot weed control in lawns since MON 78307 (Roundup) kills lawn grasses.

**Application Restrictions:** Do not apply this product in a way that will contact any person or pet, either directly or through drift. Only the person applying this product may be in the area during application.

**WHEN TO APPLY** *[optional illustration]*

- Use anytime weeds and grasses are actively growing. (Apply when weeds are actively growing.)
- For best results, apply during warm, sunny weather (above 60° F) to accelerate systemic movement from foliage to roots.
- Apply when air is calm to prevent drift to desirable plants.
- (RAIN-PROOF:) Rain or watering 2 hours (30, 60, or 90 minutes) after application will not wash away effectiveness.
- (Apply when weeds are small and before seeds form. Established (Hard to kill) weeds may require a repeat application.)

**ADDITIONAL TIPS** *[optional illustration]*

- **To Kill Vines**
  - If vines are growing up poles, fences, or tree trunks with mature bark, cut vines to a height of 3 to 4 feet and spray vines thoroughly.

**MON 78307 Herbicide**  
**EPA Reg No. 71995-29**

- If vines are climbing shrubs or tree trunks with green bark, cut vines at base and treat as directed for stumps or spray regrowth. If spraying regrowth, shield shrubs and green bark from spray drift with a sheet (piece) of cardboard or plastic.
- **To Kill Stumps**
  - Cut living stump close to ground.
  - Drive 4 to 5 holes into freshly cut stump.
  - Immediately pour undiluted product into holes.
- **Kudzu**

For best results, apply in mid to late summer when vines are mature and actively growing.
- **Wild Blackberry**

Spray anytime plants are actively growing. Dead canes should be cut down and removed. Reapplication is often required to kill deep roots.
- **Poison Ivy & Poison Oak**

Contact with these plants anytime of the year can cause an allergic reaction. Spray anytime plants are actively growing, but at least 4 weeks before the first killing frost in the fall. Reapply, if new growth appears. Handle dead plants with rubber gloves. Dispose of plants and rubber gloves in tightly sealed garbage bags.

**WHEN TO REPLANT** *[optional illustration]*

- All ornamental flowers, trees and shrubs may be planted **2 days after** application.
- Lawn grasses may be planted **7 days after** application.

**HOW IT WORKS** *[optional illustration]*

MON 78307 (Roundup) enters plants through foliage and moves systemically to the roots, killing weeds by stopping the production of a substance found in plants. Any product (Roundup) not absorbed by plants will be deactivated after it hits the soil. Weeds usually yellow and wilt within hours with complete kill in 1 to 2 weeks.

**KILLS ALL TYPES OF WEEDS & GRASSES** *[optional illustration]*

**Weeds (including):** Artichoke thistle, beggarweed, black medic, blue mustard, blue toadflax, brassbuttons, broadleaf plantain, burclover, buttercup, Canada thistle, cattail, chickweed, cocklebur, common groundsel, common mullein, common plantain, common ragweed, creeping beggarweed, creeping-charlie, curly dock, dandelion, dog fennel, evening primrose, false dandelion, fiddleneck, field bindweed (wild



**MON 78307 Herbicide**  
**EPA Reg No. 71995-29**

morningglory), field pennycress, filaree, Florida pusley, garden spurge, henbit, horsenettle, horseradish, horseweed/ marestalk, iceplant, knapweed, knotweed, lambsquarters, lantana, little bittercress, London rocket, mallow, mayweed, milkweed, mouseear chickweed, narrowleaf (buckhorn) plantain, nightshade (silverleaf), oldenlandia, oxalis, Pennsylvania smartweed, pennywort, poison hemlock, prickly lettuce, primrose, prostrate spurge, puncturevine, ragweed, red clover, redroot pigweed, shepherdspurge, smooth catsear, smooth pigweed, sowthistle, spotted spurge, tansy ragwort, tansymustard, teaweed, trumpetcreeper, tumble mustard, Virginia creeper, white clover, whitetop, wild barley, wild mustard, wild oats, wild sweet potato, yellow starthistle, and other broadleaf weeds

**Grasses (including):** Annual bluegrass, annual ryegrass, bahiagrass, barnyardgrass, bentgrass, Bermudagrass, brome grass, Cogongrass, crabgrass, creeping bentgrass, dallisgrass, fall panicum, fescue, field sandbur, foxtail, goosegrass, guineagrass, Johnsongrass, Kentucky bluegrass, kikuyugrass, lovegrass, maidencane, nimblewill, nutsedge, orchardgrass, pampas grass, perennial ryegrass, purple nutsedge, quackgrass, sandspur, smooth brome grass, sprangletop, St. Augustinegrass, tall fescue, Texas panicum, Timothy, torpedograss, vaseygrass, witchgrass, yellow nutgrass, zoysia and other grassy weeds

**Brush (Tough Weeds), Unwanted Trees, Shrubs & Vines (including):**

Alder, ash, (quacking) aspen, blackberry, bluegum eucalyptus, broom (French, Scotch), buckwheat, ceanothus, chamise, cherry, coyote brush, dewberry, elderberry, elm, eucalyptus, giant reed, hawthorn, hazel, honeysuckle, kudzu, locust, madrone, maple, oak, persimmon, poison oak, poison ivy, poplar, raspberry, sage, sagebrush, salmonberry, saltcedar, sassafras, sumac, sweetgum, tan oak, thimbleberry, tree tobacco, wild rose (multiflora) willow and other tough weeds

**STORAGE AND DISPOSAL** *[trash can illustration]*

**STORAGE:** Store in original container in a safe place.

**DISPOSAL: Empty Container:** Put in trash. (Recycle where available.) **Partially Full**

**Container:** Call your local waste disposal service (1-800-CLEANUP). If local laws permit, put partially full container in trash. Never pour product down any drain.

**HOW TO REFILL ROUNDUP READY-TO-USE CONTAINERS**

• **24 fl oz Roundup Weed & Grass Killer, Ready-To-Use:**

To empty container add 2 fl oz of MON 78307 (Roundup Concentrate) then fill with water very slowly to avoid foaming.

• **½ Gallon Roundup Weed & Grass Killer, Ready-To-Use:**

To empty container add 5 fl oz of MON 78307 (Roundup Concentrate) then fill with water very slowly to avoid foaming.



**MON 78307 Herbicide**  
**EPA Reg No. 71995-29**

- **Gallon Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 10 oz of MON 78307 (Roundup Concentrate) then fill with water very slowly to avoid foaming.
- **1.33 Gallon Roundup PNS (II):**  
To empty container add 13 fl oz of MON 78307 (Roundup Concentrate) then fill with water very slowly to avoid foaming.
- **6L Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 16 fl oz of MON 78307 (Roundup Concentrate) then fill with water very slowly to avoid foaming.
- **2 Gallon Roundup Weed & Grass Killer<sub>1</sub> Ready-To-Use:**  
To empty container add 20 fl oz of MON 78307 (Roundup Concentrate) then fill with water very slowly to avoid foaming.

|  |
|--|
| <b>PRECAUTIONARY STATEMENTS</b> <i>[optional illustration]</i> |
|--|

*[re-entry icon]* People and pets may enter treated area after spray has dried.

**HAZARDS TO HUMANS & DOMESTIC ANIMALS**

**CAUTION:**

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

| FIRST AID  |  |
|--|--|
| <b>If in eyes</b>  | <ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently for 15-20 minutes.</li><li>• Remove contact lenses, if present, after first 5 minutes, then continue rinsing.</li><li>• Call a poison control center (1-800-225-2883 or 1-888-768-6387 or 1-888-Roundup) or doctor for treatment advice.</li></ul> |
| Emergency Medical Information  |  |
| Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may contact 1-800-225-2883 (1-888-768-6387 or 1-888-Roundup) for emergency medical treatment information. |  |

**ENVIRONMENTAL HAZARDS:** This product is toxic to aquatic invertebrates. Do not apply directly to any body of water. Do not contaminate water when disposing of equipment washwaters.



**MON 78307 Herbicide**  
**EPA Reg No. 71995-29**

**NOTICE:** Buyer assumes all responsibility for safety and use not in accordance with directions.

This product is protected by U.S. Patents No. 5,683,958 and No. 5,703,015 and No. 6,063,733 and No. 6,121,199 and No. 6,121,200. Other patents pending. No license granted under any non-U.S. patent(s).

This is an end-use product. Monsanto does not intend and has not registered if for reformulation or repackaging.

|  |
|--|
| <p>[phone icon] <b>Questions, Comments or Medical Information</b><br/><b>call 1-800-225-2883</b>      <a href="http://www.roundup.com">www.roundup.com</a><br/><b>(call 1-888-Roundup)</b></p> |
|--|

Roundup is a trademark of Monsanto Company

©[ ] MONSANTO COMPANY

Manufactured for  
Monsanto Company, Lawn & Garden Products  
P.O. Box 1750  
Columbus, OH 43216  
Form [ ]  
EPA Reg. No. 71995-29  
EPA Est. 239-IA-3<sup>1</sup>, 58996-MO-1<sup>A</sup>  
Superscript is first letter of lot number  
Made in USA

**APPENDIX 1 – Consolidated List of Label Claims**  
*[Ordered alphabetically]*

- Absorbed into both broadleaf and grassy weeds
- Absorbs on contact, starts working immediately
- Absorbs 3 times (X) faster to the root than competitive brands for quicker, more effective root kill
- Approved for most (many) lawn and garden uses
- Before *[weed graphics]* / After *[weed graphics]*
- Begins absorbing on contact
- Can be used for habitat restoration, controlling exotic vegetation, and for site preparation of wildlife food plots
- Can reseed or sod lawns 7 days after treatment
- Concentrated for extra value
- Contains FastAct™ (technology)
- Dare to compare (a picture is worth 1,000 words): Roundup works faster than any competitor (imitator)
- Dead Weeds Guaranteed
- Dead Weeds Guaranteed or Your Money Back
- Dead (weeds) in a day
- Does not have soil activity
- Economical
- Economical concentrate formula
- Easy to apply with a tank or (hand held) trigger sprayer
- Even if it rains – Roundup won't lose its effectiveness
- Exclusive Roundup formula
- Experience the Roundup Advantage (peel back this panel for detail) (see details inside / underneath this booklet) (see details on back panel)
- Fast-acting formula
- Fast-acting formula works twice as fast (50% faster)
- Fast-acting formula absorbs to root more quickly
- Faster than ever
- Fastest Roundup (formulation) ever
- For control that doesn't (won't) wash away
- For general weed control - kills weeds and grasses in 2 to 4 weeks - roots and all
- For weeds that are dead in a (one) day
- Guaranteed same effective results even if it rains within hours
- Guaranteed effective: Kills over 200 types of weeds and grasses, roots and all, with



**MON 78307 Herbicide**  
**EPA Reg No. 71995-29**

just one application

- Guaranteed (we guarantee it)
- Ideal for killing unwanted weeds and grasses throughout your yard. Use along fences; in cracks of walks, drives and patios; and around flower beds, trees and shrubs
- Imitators (competitors) (other weedkillers) cannot match Roundup's proven performance: [picture of Roundup versus generic competitors]
- Improved extra strength formula
- Improved formula, completely kills even the toughest weeds and grasses
- Keeps driveways, walkways, landscaping beds, and flower gardens weed-free all season long
- Kills almost all (annual and perennial) weeds, grasses and other unwanted plants
- Kills existing weeds only, no residual activity in soil
- Kills more weeds in more places.
- Kills over 100 weeds
- Kills (to) the root
- Kills (the toughest weeds and grasses) the root so weeds (they) don't come back
- Kills the root so weeds don't come back
- Kills the roots of (both) broadleaf and grassy weeds
- Kills the weed you see and the root you don't
- Kills unwanted weeds and grasses, roots and all
- Kills weeds in flowerbeds, around trees, shrubs and fences, and on patios, paths, sidewalks, sidewalk cracks, walkways, driveways, and other areas in your yard
- Kills weeds, roots and all
- Lawns and gardens can be reseeded or planted soon after treatment
- Make only what you need
- Multipurpose grass and broadleaf weed control
- NEW!
- Next day (this weekend) results: Begins killing on contact, visible results in 24 hours
- No odor
- No root. No weed. No problem.
- Nobody kills more weeds
- Nobody's better than Roundup
- Nobody's faster
- Nobody's better
- Nothing is more effective
- Nothing works better
- Nothing kills more weeds
- NOW!
- Now a shorter wait for replanting!
- Once it enters the plant, it won't wash off
- One application kills over 200 types of weeds and grasses, roots and all (maximum effectiveness)
- Only Roundup's effectiveness (formula) won't be washed away by rain or watering 2 hours (1 hour)(30 minutes) after treatment

**MON 78307 Herbicide**  
**EPA Reg No. 71995-29**

- Proven (trusted) performance: Only Roundup works the first time, every time – and has for 25 years
- Provides maximum control: Kills weeds to the root so they don't ever come back
- Quick kill formula (the toughest)
- Quick-action formula lets you see results 50% faster than other brands
- Quick-action formula lets you see results two times faster than other brands
- Ornamental gardens can be reseeded or planted 1 day after treatment
- RainFast in hours - enters the plant on contact
- RAIN-PROOF™ (Mistake Proof)
- RAIN-PROOF™ in two hours (30, 60, or 90 minutes)
- Roundup can be used (almost) anywhere weeds and grasses grow, including patios, walkways, and driveways; along fences; in landscaping beds; or around flowers, shrubs and trees
- (Roundup) Kills the weed you see and the root others leave behind
- Roundup's exclusive (patented) formula (technology) kills to the root so weeds don't come back
- Roundup kills weeds and grasses in – Patios – Driveways – Sidewalks – Ornamental Gardens and other non-lawn areas
- Satisfaction guaranteed or we will gladly refund purchase price
- Satisfaction guaranteed or your money back with proof of purchase
- See results in hours
- See results in 24 hours
- Speeds absorption to the root for complete kill
- Spray weeds (Use) in flowerbeds, around trees, shrubs and around fences, and on patios, paths, sidewalks, sidewalk cracks, walkways, driveways, and other areas in your yard
- Starts to kill in hours
- Starts working immediately (in hours)
- Stronger
- The best weed killer you can buy – guaranteed (we guarantee it)
- The fastest weed killer (starts working immediately)
- The fastest concentrate formula
- The most effective weed (and grass) killer (you can buy)
- The strongest weed and grass killer you can buy: Guaranteed
- Superior results
- Transorb technology speeds Roundup to the root to kill even tough weeds
- Twice as fast
- Ultra concentrated formula
- Ultra formula
- (Use) For Brush Control
- (Use) For General Weed Control: Use along fences, paths, patios, sidewalks and driveways, around trees, shrubs, ornamental plantings, flowerbeds, and buildings, and in brick and gravel walkways.
- Use to trim and edge landscape areas.
- (Use) For Spot Spraying: Use in and around flowerbeds, ornamental trees, shrubs,



**MON 78307 Herbicide**  
**EPA Reg No. 71995-29**

fences, driveways and walkways

- (Use) For Stumps
- (Use in) Apply with a Big Shot™ Multi-Purpose Sprayer or other tank sprayer, or a (hand held) trigger sprayer
- Visible effects are gradual wilting and yellowing advancing to complete browning and root destruction.
- Water based formula
- Won't wash off
- Won't wash away
- Works first time, every time
- Works in hours
- Works only when absorbed by the foliage of weeds

*[Promotional options]*

- Save up to \$[x] on (your) next purchase
- Free weed guide inside
- Free [ ] with this purchase of Roundup concentrate quart
- FREE REFILL
- FREE SAMPLE
- SAMPLE NOT FOR SALE

APPENDIX 2 – Packaging Related Claims

NET xx fl oz (qt or gal) (xx mL or L)  
6 fl oz (177 mL)  
13 oz (384 mL)  
16 fl oz (1 pt) (473 mL)  
32 fl oz (1 qt) 946 mL)  
53.7 fl oz (0.42 gal) (1.5 L)  
64 fl oz (1/2 gal) (1.89 L)  
128 fl oz (1 gal) (3.79 L)

[corner flap]

OPEN

Resealable Label for Directions & Precautions

PULL HERE TO OPEN LABEL

PEEL HERE

PEEL OPEN FOR USE DIRECTIONS AND FURTHER INFORMATION

PRESS TO RESEAL

[Net contents] Makes up to 'X' gallons

Makes between 'X' – 'Y' gallons

Mix with water to make 'X' gallons of spray solution

Covers up to 'Z' sq ft

Mix with water to cover up to 'Z' sq ft

$$[X = \text{net contents} \div 3]$$

$$[Y = \text{net contents} \div 6]$$

$$[Z = X * 300]$$

[Pint]

Makes up to 5 gallons

Makes between 2½ - 5 gallons

Mix with water to make 5 gallons of spray solution

Covers up to 1,500 sq ft

Mix with water to cover up to 1,500 sq ft

[Quart]

Makes up to 10 gallons

Makes between 5 – 10 gallons

Mix with water to make 10 gallons of spray solution

Covers up to 3,000 sq ft

Mix with water to cover up to 3,000 sq ft

[0.42 Gallon] Makes up to 18 gallons

Makes between 9 – 18 gallons



**MON 78307 Herbicide**  
**EPA Reg No. 71995-29**

Mix with water to make 18 gallons of spray solution  
Covers up to 5,400 sq ft  
Mix with water to cover up to 5,400 sq ft

*[Half Gallon]* Makes up to 21 gallons  
Makes between 10 – 21 gallons  
Mix with water to make 21 gallons of spray solution  
Covers up to 6,300 sq ft  
Mix with water to cover up to 6,300 sq ft

*[Gallon]* Makes up to 42 gallons  
Makes between 21 – 42 gallons  
Mix with water to make 42 gallons of spray solution  
Covers up to 12,600 sq ft  
Mix with water to cover up to 12,600 sq ft

New! Larger size, covers up to [ 'Z' ] sq ft

With (the convenient) measuring cup, mixing MON 78307 (controlling weeds around your home) has never been easier

With (the convenient) measuring cup, controlling weeds all around your home has never been this fast and easy

Note for Records

Name of Product: MON 78307 Herbicide

EPA Registration No./ File Symbol: 71995-29

Submission Date: 12/20/01 - resubmitted by Company

Received Date: 12/20/01

Date Worked: 1/3/02 - decision on inhalation study

AWP 1/11/02 - Label Review & Completion

Description of action:

Submission of inhalation study to revise category for acute inhalation to IV

MR ID of Study # 45461201

Comments: 5 males and 5 female ~~rats~~ rats were exposed to 2.40 mg/L

test material for 4 hours. ~~5~~ 1/5 males and 1/5 females died

LC50 > 2.40 mg/L

Confirmed with TRB. Therefore Category IV is acceptable; no precautionary or first aid ~~statements~~ statements required for acute inhalation

Signature and Date:

Study and label acceptable

UKW 1/11/02

(AWP)



MONSANTO



454612-03

20 July 2001

*Resubmitted  
by Company  
12/20/01*

MONSANTO COMPANY  
800 NORTH LINDBERGH BLVD  
ST. LOUIS, MISSOURI 63167  
PHONE (314) 694-1000  
<http://www.monsanto.com>

**Hand Delivered**

Document Processing Center (AMEND)  
Office of Pesticide Programs  
U.S. Environmental Protection Agency  
Room 266A, Crystal Mall 2,  
1921 Jefferson Davis Highway  
Arlington, VA 22202-4501

Attention: Mr. Jim Tompkins  
Product Manager (Team 25)

Subject: **MON 78307 Herbicide (EPA Reg. No. 71995-EO). Submission of Additional  
Acute Inhalation Data in Support of the Application to Register MON 78307  
Herbicide.**

Dear Mr. Tompkins:

Monsanto is herein submitting the acute inhalation study for MON 78567 as R.D. 1547 (one volume) in support of our application to register MON 78307 Herbicide (Reg. No. 71995-EO). The master label has also been revised to reflect the new inhalation data and is intended to replace the previously submitted master label provided in R.D. 1537 that was submitted to the Agency on 17 May 2001.

The application to register MON 78307 Herbicide was originally supported by an acute inhalation study on a similar formulation, MON 78408, which contained higher levels of glyphosate, diquat and surfactant. As a result, the acute inhalation toxicology data supported a category III classification. Since Monsanto desired MON 78307 to have an equivalent acute toxicological profile as our current Roundup concentrated products, a second inhalation study was conducted using MON 78567 and is now being submitted.

MON 78567 contains the same levels of diquat and surfactant as MON 78307 but with a slightly higher glyphosate level, thus the acute toxicity of MON 78567 is considered to be representative of MON 78307. A compositional comparison of MON 78307, MON 78408, and MON 78567 can be found in the confidential attachment of the administrative volume of R.D. 1537.

Should you require any additional information or have any questions, please contact Dr. Marsha Gray at our Washington office (202) 783-2460 or me directly at (314) 694-8785 or [rmmann@monsanto.com](mailto:rmmann@monsanto.com).

Sincerely,

Rhonda M. Mannion  
Registration Manager

cc: Vickie Walters / EPA  
Marsha Gray / Monsanto DC  
File copy

TRANSMITTAL DOCUMENTSUBMITTED BY

Monsanto Company  
Lawn & Garden Products  
800 N. Lindbergh Blvd.  
St. Louis, MO 63167

REGULATORY ACTION IN SUPPORT OF WHICH THE PACKAGE IS SUBMITTED

Application for Registration of MON 78307 Herbicide

DATA GUIDELINES

81-3 [OPPTS Series 870.1300]

TRANSMITTAL DATE

20 July 2001

SUBMISSION NUMBER

R.D. 1547, 1 volume

LIST OF SUBMITTED DATA:

| Volume | Monsanto Study Number | Author         | Title  |
|--------|-----------------------|----------------|--|
| 1      | R.D. 1547             | Bonnette, K.L. | An Acute Nose-Only Inhalation Study in Rats with MON 78567 |

MRID

454612.01

COMPANY OFFICIAL:

Rhonda M. Mannion  
Rhonda M. Mannion  
Registration Manager

COMPANY NAME:

Monsanto Company

COMPANY CONTACT:

Dr. Marsha Gray (202) 783-2460

Transmittal Document R.D. 1541

Page 1





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OCT 31 2001

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

Ms. Rhonda M. Mannion  
Monsanto Company  
600 13<sup>th</sup> Street, NW Suite 660  
Washington, DC 20005

Dear Ms. Mannion:

Subject: MON 78307 Herbicide (Alternate Formulation B)  
EPA Registration No. 71995-29  
Your Application Dated October 14, 2001

The scientific review and evaluation of the requested confidential statement of formula have been completed. Alternate formulation B is acceptable and our records have been modified accordingly.

Sincerely,

*James A. Tompkins*  
James A. Tompkins  
Product Manager 25  
Herbicide Branch  
Registration Division (7505C)





MONSANTO

Food • Health • Hope



B

15 October 2001

MONSANTO COMPANY

600 13TH STREET, NW

SUITE 660

WASHINGTON, D.C. 20005

<http://www.monsanto.com>

**Hand Delivered**

Document Processing Center (AMEND)  
Office of Pesticide Programs  
U.S. Environmental Protection Agency  
Room 266A, Crystal Mall 2,  
1921 Jefferson Davis Highway  
Arlington, VA 22202-4501

Attention: Mr. Jim Tompkins  
Product Manager (Team 25)

Subject: **MON 78307 Herbicide (EPA Reg. No. 71995-EO). Submission of Formulation Amendment.**

Dear Mr. Tompkins:

Monsanto is herein submitting for approval a formulation amendment for MON 78307 (Reg. No. 71995-EO). Alternate B has been developed to allow for the use of [REDACTED] as the source of diquat dibromide active ingredient in MON 78307. This formulation is identical to the formulas (basic and alternate A) submitted on 11 May 2001 as a part of the initial registration request (R.D. 1537) except for the different source of diquat.

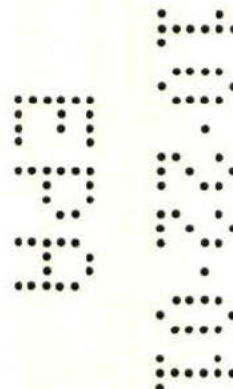
Should you require any additional information or have any questions regarding this formula amendment, please contact Dr. Marsha Gray at our Washington office (202) 783-2460 or me directly at (314) 694-8785 or [rmmann@monsanto.com](mailto:rmmann@monsanto.com).

Sincerely,

Rhonda M. Mannion  
Registration Manager

cc: Vickie Walters / EPA  
Marsha Gray / DC Office  
File room copy

\*Product ingredient source information may be entitled to confidential treatment\*





United States  
Environmental Protection Agency  
Washington, DC 20460

☐ Registration  
☒ Amendment  
☐ Other

OPP Identifier Number

285891

## Application for Pesticide - Section I

|   |  |  |
|---|--|--|
| 1. Company/Product Number<br>71995-EO   | 2. EPA Product Manager<br>Mr. Jim Tompkins | 3. Proposed Classification<br><input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted   |
| 4. Company/Product (Name)<br>MON 78307  | PM#<br>25                                  |  |
| 5. Name and Address of Applicant (Include ZIP Code)<br>Monsanto Company<br>600 13th Street N.W., Suite 660<br>Washington, DC 20005<br><input type="checkbox"/> Check if this is a new address |  | 6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to:<br>EPA Reg. No. _____<br>Product Name _____ |

## Section - II

|  |  |
|--|--|
| <input checked="" type="checkbox"/> Amendment - Explain below.                 | <input type="checkbox"/> Final printed labels in response to Agency letter dated _____ |
| <input type="checkbox"/> Resubmission in response to Agency letter dated _____ | <input type="checkbox"/> "Me Too" Application.   |
| <input type="checkbox"/> Notification - Explain below.                         | <input type="checkbox"/> Other - Explain below.  |

**Explanation:** Use additional page(s) if necessary. (For section I and Section II.)  
Submission of formula amendment.

## Section - III

|   |   |  |                   |  |                   |
|---|---|--|-------------------|--|-------------------|
| 1. Material This Product Will Be Packaged In:   |   |  |                   | 2. Type of Container   |                   |
| Child-Resistant Packaging<br><input type="checkbox"/> Yes<br><input type="checkbox"/> No  | Unit Packaging<br><input type="checkbox"/> Yes<br><input type="checkbox"/> No | Water Soluble Packaging<br><input type="checkbox"/> Yes<br><input type="checkbox"/> No |                   | <input type="checkbox"/> Metal<br><input type="checkbox"/> Plastic<br><input type="checkbox"/> Glass<br><input type="checkbox"/> Paper<br><input type="checkbox"/> Other (Specify) _____ |                   |
| * Certification must be submitted   |   | If "Yes" Unit Packaging wgt.   | No. per container | If "Yes" Package wgt   | No. per container |
| 3. Location of Net Contents Information<br><input type="checkbox"/> Label <input type="checkbox"/> Container  |   | 4. Size(s) Retail Container  |                   | 5. Location of Label Directions<br><input type="checkbox"/>  |                   |
| 6. Manner in Which Label is Affixed to Product<br><input type="checkbox"/> Lithograph<br><input type="checkbox"/> Paper glued<br><input type="checkbox"/> Stenciled |   | <input type="checkbox"/> Other _____   |                   |  |                   |

## Section - IV

|   |                                  |   |  |
|---|----------------------------------|---|--|
| 1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)   |                                  |   |  |
| Name<br>Dr. Marsha Gray   | Title<br>Registration Manager    | Telephone No. (Include Area Code)<br>(202) 783-2460 |  |
| <b>Certification</b><br>I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete.<br>I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law. |                                  | 6. Date Application Received<br>(Stamped)<br>       |  |
| 2. Signature<br>  | 3. Title<br>Registration Manager |   |  |
| 4. Typed Name<br>Rhonda M. Mannion  | 5. Date<br>14 October 2001       |   |  |





U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Registration Division (H7505C)  
401 "M" St., S.W.  
Washington, D.C. 20460

EPA Reg.  
Number:

71995-29

Date of Issuance:

OCT 31 2001

NOTICE OF PESTICIDE:

☒ Registration  
☐ Reregistration

(under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

MON 78307 Herbicide

Name and Address of Registrant (include ZIP Code):

Monsanto Company  
600 13th Street, N.W. Suite 660  
Washington, DC 20005

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A) provided that you:

1. Submit the storage stability and corrosion characteristics study once it is completed.
2. Submit/cite all data required for registration/reregistration of your product when the Agency requires all registrants of similar products to submit such data.
3. Add the phrase "EPA Registration No. 71995-29" before you release the product for shipment.
4. Submit three (3) copies of your final printed labeling before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of this product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Signature of Approving Official:

Date:

10-31-01

fake copy

[Editorial Notes: Bracketed text [ ] is for internal use or serves as a 'place holder' for graphics. Parenthetical text ( ) denotes optional wording.]

[Refer to APPENDIX 1 for consolidated list of label claims.]

[Refer to APPENDIX 2 for packaging related claims/instructions]

**MON 78307 Herbicide**

Active Ingredient  
Glyphosate, isopropylamine salt ..... 18.0 %  
Diquat dibromide..... 0.73 %  
Other Ingredients .....81.27 %

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

See back panel booklet for additional precautionary statements.  
(Read precautions and directions on back label.)

NET [xxx]

**ACCEPTED**  
  
OCT 31 2001  
  
Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
as amended, for the pesticide  
registered under  
EPA Reg. No 71995-29

**MON 78307 Herbicide**  
**EPA Reg No. 71995-EO**



|  |   |
|--|---|
| <b>Product Facts</b>   |   |
| Treats up to xx sq ft (approx. size of XX tennis courts)<br>[ When calculating coverage, one gallon treats 300 sq ft and a tennis court is 2,106 sq ft.]                         |   |
| <b>KILLS WEEDS</b>   | [Illustrate grassy, broadleaf and woody weeds]<br>ALL TYPES OF WEEDS & GRASSES  |
| <b>WHERE TO USE</b>  | <ul style="list-style-type: none"> <li>• On patios, walkways, driveways, gravel or mulch beds</li> <li>• Around flowers, shrubs or trees</li> <li>• Along fences</li> <li>• Other areas in your yard</li> </ul> |
| <b>AMOUNT TO USE</b>   | <b>For best results</b><br><ul style="list-style-type: none"> <li>• 6 fl oz (12 Tbs) per gallon of water</li> </ul>   |
| [phone icon] <b>Questions, Comments or Medical Information</b><br><b>call 1-800-225-2883</b> <a href="http://www.roundup.com">www.roundup.com</a><br><b>(call 1-888-Roundup)</b> |   |

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

#### MIXING INSTRUCTIONS

[optional tank sprayer illustration]

**Tank Sprayer** (plastic, aluminum, fiberglass, plastic-lined steel or stainless steel. **(Do not (mix, store or) apply with (in) a galvanized or unlined steel sprayer.)**

- (For tough established weeds / For best results,) add 6 fl oz (12 Tbs) to 1 gallon of water.
- (For easy to kill weeds such as small seedlings, add 3 fl oz ( 6 Tbs) to 1 gallon of water.)
- (Spot treat)

1 Tablespoon (Tbs) = 3 teaspoons (tsp)

1 fl oz = 2 Tbs

Do not (mix, store or) apply with (in) a galvanized or unlined steel (except stainless steel) sprayer, or through any irrigation system.

To clean sprayer after use, rinse sprayer and all sprayer parts with water 3 times. Spray rinse water on bare soil or gravel. After cleaning, sprayer may be used for other products.

### **USER SAFETY RECOMMENDATIONS** *[optional illustration]*

- Clothing and protective equipment exposed to this product should be washed in detergent and hot water. Such items should be kept and washed separate from other laundry.
- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing immediately if product gets inside; then wash thoroughly and put on clean clothing.

### **HOW TO APPLY** *[optional illustration]*

- Spray the weeds or grasses you want to kill until thoroughly wet.
- When spot treating weeds around desirable plants, shield plants from drift with a sheet (piece) of cardboard or plastic. If desirable plants are accidentally sprayed, rinse off immediately with water.

**IMPORTANT:** Do not spray plants or grasses you like - they may die too. Not recommended for spot weed control in lawns since MON 78307 (Roundup) kills lawn grasses.

**Application Restrictions:** Do not apply this product in a way that will contact any person or pet, either directly or through drift. Only the person applying this product may be in the area during application.

### **WHEN TO APPLY** *[optional illustration]*

- Use anytime weeds and grasses are actively growing. (Apply when weeds are actively growing.)
- For best results, apply during warm, sunny weather (above 60° F) to accelerate systemic movement from foliage to roots.
- Apply when air is calm to prevent drift to desirable plants.
- (RAIN-PROOF:) Rain or watering 2 hours (30, 60, or 90 minutes) after application will not wash away effectiveness.
- (Apply when weeds are small and before seeds form. Established (Hard to kill) weeds may require a repeat application.)

### **ADDITIONAL TIPS** *[optional illustration]*

- **To Kill Vines**
  - If vines are growing up poles, fences, or tree trunks with mature bark, cut vines to a height of 3 to 4 feet and spray vines thoroughly.
  - If vines are climbing shrubs or tree trunks with green bark, cut vines at base and



treat as directed for stumps or spray regrowth. If spraying regrowth, shield shrubs and green bark from spray drift with a sheet (piece) of cardboard or plastic.

- **To Kill Stumps**

- Cut living stump close to ground.
- Drive 4 to 5 holes into freshly cut stump.
- Immediately pour undiluted product into holes.

- **Kudzu**

For best results, apply in mid to late summer when vines are mature and actively growing.

- **Wild Blackberry**

Spray anytime plants are actively growing. Dead canes should be cut down and removed. Reapplication is often required to kill deep roots.

- **Poison Ivy & Poison Oak**

Contact with these plants anytime of the year can cause an allergic reaction. Spray anytime plants are actively growing, but at least 4 weeks before the first killing frost in the fall. Reapply, if new growth appears. Handle dead plants with rubber gloves. Dispose of plants and rubber gloves in tightly sealed garbage bags.

#### **WHEN TO REPLANT** *[optional illustration]*

- All ornamental flowers, trees and shrubs may be planted **2 days after** application.
- Lawn grasses may be planted **7 days after** application.

#### **HOW IT WORKS** *[optional illustration]*

MON 78307 (Roundup) enters plants through foliage and moves systemically to the roots, killing weeds by stopping the production of a substance found in plants. Any product (Roundup) not absorbed by plants will be deactivated after it hits the soil. Weeds usually yellow and wilt within hours with complete kill in 1 to 2 weeks.

#### **KILLS ALL TYPES OF WEEDS & GRASSES** *[optional illustration]*

**Weeds (including):** Artichoke thistle, beggarweed, black medic, blue mustard, blue toadflax, brassbuttons, broadleaf plantain, burclover, buttercup, Canada thistle, cattail, chickweed, cocklebur, common groundsel, common mullein, common plantain, common ragweed, creeping beggarweed, creeping-charlie, curly dock, dandelion, dog fennel, evening primrose, false dandelion, fiddleneck, field bindweed (wild morningglory), field pennycress, filaree, Florida pusley, garden spurge, henbit, horsenettle, horseradish, horseweed/ marestalk, iceplant, knapweed, knotweed, lambsquarters, lantana, little



bittercress, London rocket, mallow, mayweed, milkweed, mouseear chickweed, narrowleaf (buckhorn) plantain, nightshade (silverleaf), oldenlandia, oxalis, Pennsylvania smartweed, pennywort, poison hemlock, prickly lettuce, primrose, prostrate spurge, puncturevine, ragweed, red clover, redroot pigweed, shepherdspurse, smooth catsear, smooth pigweed, sowthistle, spotted spurge, tansy ragwort, tansymustard, teaweed, trumpetcreeper, tumble mustard, Virginia creeper, white clover, whitetop, wild barley, wild mustard, wild oats, wild sweet potato, yellow starthistle, and other broadleaf weeds

**Grasses (including):** Annual bluegrass, annual ryegrass, bahiagrass, barnyardgrass, bentgrass, Bermudagrass, bromegrass, Cogongrass, crabgrass, creeping bentgrass, dallisgrass, fall panicum, fescue, field sandbur, foxtail, goosegrass, guineagrass, Johnsongrass, Kentucky bluegrass, kikuyugrass, lovegrass, maidencane, nimblewill, nutsedge, orchardgrass, pampas grass, perennial ryegrass, purple nutsedge, quackgrass, sandspur, smooth bromegrass, sprangletop, St. Augustinegrass, tall fescue, Texas panicum, Timothy, torpedograss, vaseygrass, witchgrass, yellow nutgrass, zoysia and other grassy weeds

**Brush (Tough Weeds), Unwanted Trees, Shrubs & Vines (including):**

Alder, ash, (quacking) aspen, blackberry, bluegum eucalyptus, broom (French, Scotch), buckwheat, ceanothus, chamise, cherry, coyote brush, dewberry, elderberry, elm, eucalyptus, giant reed, hawthorn, hazel, honeysuckle, kudzu, locust, madrone, maple, oak, persimmon, poison oak, poison ivy, poplar, raspberry, sage, sagebrush, salmonberry, saltcedar, sassafras, sumac, sweetgum, tan oak, thimbleberry, tree tobacco, wild rose (multiflora) willow and other tough weeds

**STORAGE AND DISPOSAL** *[trash can illustration]*

**STORAGE:** Store in original container in a safe place.

**DISPOSAL: Empty Container:** Put in trash. (Recycle where available.) **Partially Full Container:** Call your local waste disposal service (1-800-CLEANUP). If local laws permit, put partially full container in trash. Never pour product down any drain.

**HOW TO REFILL ROUNDUP READY-TO-USE CONTAINERS**

• **24 fl oz Roundup Weed & Grass Killer<sup>1</sup> Ready-To-Use:**

To empty container add 2 fl oz of MON 78307 (Roundup Concentrate) then fill with water very slowly to avoid foaming.

• **½ Gallon Roundup Weed & Grass Killer<sup>1</sup> Ready-To-Use:**

To empty container add 5 fl oz of MON 78307 (Roundup Concentrate) then fill with water very slowly to avoid foaming.

• **Gallon Roundup Weed & Grass Killer<sup>1</sup> Ready-To-Use:**

To empty container add 10 oz of MON 78307 (Roundup Concentrate) then fill with



water very slowly to avoid foaming.

• **1.33 Gallon Roundup PNS (II):**

To empty container add 13 fl oz of MON 78307 (Roundup Concentrate) then fill with water very slowly to avoid foaming.

• **6L Roundup Weed & Grass Killer<sup>1</sup> Ready-To-Use:**

To empty container add 16 fl oz of MON 78307 (Roundup Concentrate) then fill with water very slowly to avoid foaming.

• **2 Gallon Roundup Weed & Grass Killer<sup>1</sup> Ready-To-Use:**

To empty container add 20 fl oz of MON 78307 (Roundup Concentrate) then fill with water very slowly to avoid foaming.

**PRECAUTIONARY STATEMENTS** *[optional illustration]*

*[re-entry icon]* People and pets may enter treated area after spray has dried.

**HAZARDS TO HUMANS & DOMESTIC ANIMALS**

**CAUTION:**

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

Harmful if inhaled. Avoid breathing spray mist. Remove contaminated clothing and wash clothing before reuse.

| FIRST AID  |  |
|--|--|
| <b>If in eyes</b>  | <ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently for 15-20 minutes.</li><li>• Remove contact lenses, if present, after first 5 minutes, then continue rinsing.</li><li>• Call a poison control center (1-800-225-2883 or 1-888-768-6387 or 1-888-Roundup) or doctor for treatment advice.</li></ul>             |
| <b>If inhaled</b>  | <ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li><li>• Call a poison control center (1-800-225-2883 or 1-888-768-6387 or 1-888-Roundup) or doctor for treatment advice.</li></ul> |
| Emergency Medical Information  |  |
| Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may contact 1-800-225-2883 (1-888-768-6387 or 1-888-Roundup) for emergency medical treatment information. |  |

**ENVIRONMENTAL HAZARDS:** This product is toxic to aquatic invertebrates. Do not apply directly to any body of water. Do not contaminate water when disposing of equipment washwaters.

**NOTICE:** Buyer assumes all responsibility for safety and use not in accordance with directions.

This product is protected by U.S. Patents No. 5,683,958 and No. 5,703,015 and No. 6,063,733 and No. 6,121,199 and No. 6,121,200. Other patents pending. No license granted under any non-U.S. patent(s).

This is an end-use product. Monsanto does not intend and has not registered if for reformulation or repackaging.

|  |
|--|
| <p>[phone icon] <b>Questions, Comments or Medical Information</b><br/>call 1-800-225-2883      <a href="http://www.roundup.com">www.roundup.com</a><br/>(call 1-888-Roundup)</p> |
|--|

Roundup is a trademark of Monsanto Company

©[ ] MONSANTO COMPANY

Manufactured for  
Monsanto Company, Lawn & Garden Products  
P.O. Box 1750  
Columbus, OH 43216  
Form [ ]  
EPA Reg. No. 71995-EO  
EPA Est. 239-IA-3I, 58996-MO-1A  
Superscript is first letter of lot number  
Made in USA



## APPENDIX 1 – Consolidated List of Label Claims

*[Ordered alphabetically]*

- Absorbed into both broadleaf and grassy weeds
- Absorbs on contact, starts working immediately
- Absorbs 3 times (X) faster to the root than competitive brands for quicker, more effective root kill
- Approved for most (many) lawn and garden uses
- Before *[weed graphics]* / After *[weed graphics]*
- Begins absorbing on contact
- Can be used for habitat restoration, controlling exotic vegetation, and for site preparation of wildlife food plots
- Can reseed or sod lawns 7 days after treatment
- Concentrated for extra value
- Contains FastAct™ (technology)
- Dare to compare (a picture is worth 1,000 words): Roundup works faster than any competitor (imitator)
- Dead Weeds Guaranteed
- Dead Weeds Guaranteed or Your Money Back
- Dead (weeds) in a day
- Does not have soil activity
- Economical
- Economical concentrate formula
- Easy to apply with a tank or (hand held) trigger sprayer
- Even if it rains – Roundup won't lose its effectiveness
- Exclusive Roundup formula
- Experience the Roundup Advantage (peel back this panel for detail) (see details inside / underneath this booklet) (see details on back panel)
- Fast-acting formula
- Fast-acting formula works twice as fast (50% faster)
- Fast-acting formula absorbs to root more quickly
- Faster than ever
- Fastest Roundup (formulation) ever
- For control that doesn't (won't) wash away
- For general weed control - kills weeds and grasses in 2 to 4 weeks - roots and all
- For weeds that are dead in a (one) day
- Guaranteed same effective results even if it rains within hours
- Guaranteed effective: Kills over 200 types of weeds and grasses, roots and all, with

just one application

- Guaranteed (we guarantee it)
- Ideal for killing unwanted weeds and grasses throughout your yard. Use along fences; in cracks of walks, drives and patios; and around flower beds, trees and shrubs
- Imitators (competitors) (other weedkillers) cannot match Roundup's proven performance: [picture of Roundup versus generic competitors]
- Improved extra strength formula
- Improved formula, completely kills even the toughest weeds and grasses
- Keeps driveways, walkways, landscaping beds, and flower gardens weed-free all season long
- Kills almost all (annual and perennial) weeds, grasses and other unwanted plants
- Kills existing weeds only, no residual activity in soil
- Kills more weeds in more places.
- Kills over 100 weeds
- Kills (to) the root
- Kills (the toughest weeds and grasses) the root so weeds (they) don't come back
- Kills the root so weeds don't come back
- Kills the roots of (both) broadleaf and grassy weeds
- Kills the weed you see and the root you don't
- Kills unwanted weeds and grasses, roots and all
- Kills weeds in flowerbeds, around trees, shrubs and fences, and on patios, paths, sidewalks, sidewalk cracks, walkways, driveways, and other areas in your yard
- Kills weeds, roots and all
- Lawns and gardens can be reseeded or planted soon after treatment
- Make only what you need
- Multipurpose grass and broadleaf weed control
- NEW!
- Next day (this weekend) results: Begins killing on contact, visible results in 24 hours
- No odor
- No root. No weed. No problem.
- Nobody kills more weeds
- Nobody's better than Roundup
- Nobody's faster
- Nobody's better
- Nothing is more effective
- Nothing works better
- Nothing kills more weeds
- NOW!
- Now a shorter wait for replanting!
- Once it enters the plant, it won't wash off
- One application kills over 200 types of weeds and grasses, roots and all (maximum effectiveness)
- Only Roundup's effectiveness (formula) won't be washed away by rain or watering 2



hours (1 hour)(30 minutes) after treatment

- Proven (trusted) performance: Only Roundup works the first time, every time – and has for 25 years
- Provides maximum control: Kills weeds to the root so they don't ever come back
- Quick kill formula (the toughest)
- Quick-action formula lets you see results 50% faster than other brands
- Quick-action formula lets you see results two times faster than other brands
- Ornamental gardens can be reseeded or planted 1 day after treatment
- RainFast in hours - enters the plant on contact
- RAIN-PROOF™ (Mistake Proof)
- RAIN-PROOF™ in two hours (30, 60, or 90 minutes)
- Roundup can be used (almost) anywhere weeds and grasses grow, including patios, walkways, and driveways; along fences; in landscaping beds; or around flowers, shrubs and trees
- (Roundup) Kills the weed you see and the root others leave behind
- Roundup's exclusive (patented) formula (technology) kills to the root so weeds don't come back
- Roundup kills weeds and grasses in – Patios – Driveways – Sidewalks – Ornamental Gardens and other non-lawn areas
- Satisfaction guaranteed or we will gladly refund purchase price
- Satisfaction guaranteed or your money back with proof of purchase
- See results in hours
- See results in 24 hours
- Speeds absorption to the root for complete kill
- Spray weeds (Use) in flowerbeds, around trees, shrubs and around fences, and on patios, paths, sidewalks, sidewalk cracks, walkways, driveways, and other areas in your yard
- Starts to kill in hours
- Starts working immediately (in hours)
- Stronger
- The best weed killer you can buy – guaranteed (we guarantee it)
- The fastest weed killer (starts working immediately)
- The fastest concentrate formula
- The most effective weed (and grass) killer (you can buy)
- The strongest weed and grass killer you can buy: Guaranteed
- Superior results
- Transorb technology speeds Roundup to the root to kill even tough weeds
- Twice as fast
- Ultra concentrated formula
- Ultra formula
- (Use) For Brush Control
- (Use) For General Weed Control: Use along fences, paths, patios, sidewalks and driveways, around trees, shrubs, ornamental plantings, flowerbeds, and buildings, and in brick and gravel walkways.

- Use to trim and edge landscape areas.
- (Use) For Spot Spraying: Use in and around flowerbeds, ornamental trees, shrubs, fences, driveways and walkways
- (Use) For Stumps
- (Use in) Apply with a Big Shot™ Multi-Purpose Sprayer or other tank sprayer, or a (hand held) trigger sprayer
- Visible effects are gradual wilting and yellowing advancing to complete browning and root destruction.
- Water based formula
- Won't wash off
- Won't wash away
- Works first time, every time
- Works in hours
- Works only when absorbed by the foliage of weeds

*[Promotional options]*

- Save up to \$[x] on (your) next purchase
- Free weed guide inside
- Free [    ] with this purchase of Roundup concentrate quart
- FREE REFILL
- FREE SAMPLE
- SAMPLE NOT FOR SALE



## APPENDIX 2 – Packaging Related Claims

NET xx fl oz (qt or gal) (xx mL or L)  
6 fl oz (177 mL)  
13 oz (384 mL)  
16 fl oz (1 pt) (473 mL)  
32 fl oz (1 qt) 946 mL)  
53.7 fl oz (0.42 gal) (1.5 L)  
64 fl oz (1/2 gal) (1.89 L)  
128 fl oz (1 gal) (3.79 L)

*[corner flap]*

OPEN

Resealable Label for Directions & Precautions

PULL HERE TO OPEN LABEL

PEEL HERE

PEEL OPEN FOR USE DIRECTIONS AND FURTHER INFORMATION

PRESS TO RESEAL

*[Net contents]* Makes up to 'X' gallons

Makes between 'X' – 'Y' gallons

Mix with water to make 'X' gallons of spray solution

Covers up to 'Z' sq ft

Mix with water to cover up to 'Z' sq ft

$[X = \text{net contents} \div 3]$

$[Y = \text{net contents} \div 6]$

$[Z = X * 300]$

*[Pint]*

Makes up to 5 gallons

Makes between 2½ - 5 gallons

Mix with water to make 5 gallons of spray solution

Covers up to 1,500 sq ft

Mix with water to cover up to 1,500 sq ft

*[Quart]*

Makes up to 10 gallons

Makes between 5 – 10 gallons

Mix with water to make 10 gallons of spray solution

Covers up to 3,000 sq ft

Mix with water to cover up to 3,000 sq ft

*[0.42 Gallon]* Makes up to 18 gallons

Makes between 9 – 18 gallons

Mix with water to make 18 gallons of spray solution

Covers up to 5,400 sq ft

MON 78307 Herbicide

EPA Reg No. 71995-EO

Mix with water to cover up to 5,400 sq ft

*[Half Gallon]* Makes up to 21 gallons  
Makes between 10 – 21 gallons  
Mix with water to make 21 gallons of spray solution  
Covers up to 6,300 sq ft  
Mix with water to cover up to 6,300 sq ft

*[Gallon]* Makes up to 42 gallons  
Makes between 21 – 42 gallons  
Mix with water to make 42 gallons of spray solution  
Covers up to 12,600 sq ft  
Mix with water to cover up to 12,600 sq ft

New! Larger size, covers up to [ 'Z' ] sq ft

With (the convenient) measuring cup, mixing MON 78307 (controlling weeds around your home) has never been easier

With (the convenient) measuring cup, controlling weeds all around your home has never been this fast and easy





DATE OUT: 11 Oct 2001

SUBJECT: EP [x] MP [ ] PRODUCT CHEMISTRY REVIEW  
DP BARCODE No.: D278249  
REG./File Symbol No.: 71995-EO  
PRODUCT NAME: MON 78307 Herbicide  
COMPANY: Monsanto

TO: PM #25, Jim Tompkins/Vickie Walters  
Herbicide Branch  
Registration Division (7505C)

FROM: Bruce F. Kitchens, Chemist  
Technical Review Branch  
Registration Division (7505C)

*Bruce F. Kitchens*  
*11 Oct 2001*

**INTRODUCTION:**

The registrant, Monsanto Company, is submitting an application for the registration of the new end-use product, Mon 78307 Herbicide. The active ingredients in this product are Glyphosate isopropylamine and diquat dibromide at a label nominal concentration of 18.0 and 0.73% a.i., respectively. This product is intended for use as an herbicide. In support of this request, the registrant has submitted alternate and basic Confidential Statements of Formula (CSFs) dated 04 May 2001, a draft label, and product chemistry data contained in MRID# 454106-01. The Technical Review Branch (TRB) has been asked to review this submission.

**SUMMARY OF FINDINGS:**

TRB has reviewed this submission and reports the following findings:

1. This product is produced from a registered source of the active ingredient.
2. All inert ingredients are cleared for use in formulated products.
3. The active ingredient nominal concentration listed on the draft label and the CSF are the same.
4. The draft label contains the appropriate storage and disposal statements.
5. The active ingredient certified limits as proposed on the CSF are acceptable.



6. The proposed alternate and proposed basic CSFs have the same active ingredient concentration and the same certified limits.

#### CONCLUSIONS:

TRB has reviewed this submission and concludes the following:

1. The proposed alternate and basic formulation CSFs dated 04 May 2001 are acceptable.
2. This submission meets the data requirements as specified in 40 CFR 158.155, 158.160, 158.165, 158.167, 158.175, and 158.180 with respect to product identity and composition, description of materials used to produce the product, description of formulation process, discussion of formation impurities, certified limits, and enforcement analytical method.

A preliminary analysis was conducted on 5 lots of laboratory prepared end-use product. A mean percent of 17.98 and 0.74% was obtained for the isopropylamine salt of glyphosate and diquat dibromide, respectively. These values are similar to the stated concentration on the CSFs and the label.

3. This submission also satisfies the data requirement as specified in 40 CFR 158.190 with respect to physical and chemical characteristics.

Storage stability and corrosion characteristics studies are in progress and will be submitted to the Agency when completed. An accelerated aging study conducted at 55°C for 2 weeks showed no degradation of the active ingredients.

4. This submission meets the criteria as specified in 40 CFR 152.43 with respect to alternate formulations.

EP ☒ MP ☐ PRODUCT CHEMISTRY REVIEW

1. DP BARCODE No.: D278249 2. REG./File Symbol No.: 71995-EO
3. Registration ☒ 4. Reregistration ☐, Rereg Case No. \_\_\_\_\_
5. Product Name: MON 78307 Herbicide
6. Pesticide Type: Fungicide ☐ Herbicide ☒  
 Insecticide ☐ Rodenticide ☐ Antimicrobial ☐  
 Plant Growth Regulator ☐ Others: \_\_\_\_\_
7. Uses: Food ☐ Non food use ☒
8. Type of Submission: New ☒ Resubmission ☐ Amendment ☐  
 "ME-TOO" ☐ Alternate Formulation ☐ Repack ☐  
 Experimental Use Permit ☐ Other (Specify) \_\_\_\_\_
9. If "Me-TOO" Registration, this product is ☐ is not ☐  
 similar or substantially similar to EPA's Reg. No.: \_\_\_\_\_,  
 If not, comment in Confidential Appendix A on the differences  
 between the registered and the new source where significant.

CONFIDENTIAL STATEMENT OF FORMULA, DATED (04 May 2001) :

10. Type of formulation and the sources of active ingredients:
- a. Non-integrated formulation system..... ☒
- b. Are all technical grade active ingredients used  
 registered? yes ☒ no ☐
- c. Integrated formulation system..... ☐
11. Composition: The nominal concentrations (NC) of the active ingredients and the upper and lower certified limits (UCL & LCL) are as follows:

| Active ingredient(s) | NC   | % by weight |      |
|----------------------|------|-------------|------|
|                      |      | UCL         | LCL  |
| Glyphosate, IPA      | 18.0 | 18.6        | 17.4 |
| Diquat Dibromide     | 0.73 | 0.9         | 0.7  |



12. The calculated NCs, based on the pure active ingredients (PAI), are identical to those on the label:

yes ☒ no ☐

13. The certified limits are within the standard limits as per 40CFR§158.175 or are adequately explained if different:

yes ☒ no ☐

14. Clearance of intentionally added ingredients in the formulation for the intended use:

- a. Formulation intended for food use under 40CFR§180.1001:

yes ☐ no ☒ Some are cleared, others are not ☐

Cleared under list: c ☐ d ☐ e ☐

- b. Formulation intended for non-food use:

yes ☒ no ☐ Some are cleared, others are not ☐

15. For products produced by an integrated formulation system: All impurities of toxicological significance have an UCL:

yes ☐ no ☐ not applicable ☒

All other impurities 0.1% associated with the active ingredient in the product are reported at their nominal concentrations:

yes ☐ no ☐ not applicable ☒

PRODUCT LABEL, EPA RECEIVED (draft) :

16. The active ingredients statement (chemical identities, nominal concentrations) is consistent with the CSF yes ☒ no ☐

17. The formulation contains one of the following:

|  |                              |  |
|--|------------------------------|--|
| 10% or more of a petroleum distillate: | yes <input type="checkbox"/> | no <input checked="" type="checkbox"/> |
| 1% or more of methyl alcohol:          | yes <input type="checkbox"/> | no <input checked="" type="checkbox"/> |
| sodium nitrite at any level:           | yes <input type="checkbox"/> | no <input checked="" type="checkbox"/> |
| a toxic List 1 inert at any level:     | yes <input type="checkbox"/> | no <input checked="" type="checkbox"/> |
| arsenic in any form:                   | yes <input type="checkbox"/> | no <input checked="" type="checkbox"/> |

18. If yes to any of the above, does the inert ingredients statement contains a footnote indicating this?

yes [ ]                      no [ ]                      not applicable [x]

19. The appropriate physical and chemical hazards statement regarding flammability or explosive characteristics of the product are given on the label:

yes [ ]                      no [ ]                      not applicable [x]

20. The storage and disposal instructions for the pesticide and container are in compliance with PR Notice 84-1 for household use products or PR Notice 83-3 for all other uses:

yes [x]                      no [ ]



## PRODUCT CHEMISTRY DATA (GROUP A)

| <u>21. Chemical IDs/Manufacture/<br/>Analytical Information</u>  | <u>Data<br/>Required<br/>Fulfilled</u> | <u>MRID No.</u> |
|--|--|-----------------|
| 830-1550 Chemical Identity                                       | Y                                      | 454106-01       |
| 830-1600 Description of Materials<br>Used to Produce the Product | Y                                      | "               |
| 830-1620 Description of Production<br>Process                    | NR                                     |                 |
| 830-1650 Description of Formulation<br>Process                   | Y                                      | 454106-01       |
| 830-1670 Discussion of Impurities                                | Y                                      | "               |
| 830-1700 Preliminary Analysis                                    | NR                                     |                 |
| 830-1750 Certified Limits  | Y                                      | 454106-01       |
| 830-1800 Enforcement Analytical<br>Method                        | Y                                      | "               |

## PRODUCT CHEMISTRY DATA (GROUP B)

| <u>24. Physical/Chemical Properties</u>               | <u>Data Required Fulfilled</u> | <u>Value or Qualitative Description</u>   | <u>MRID No.</u> |
|---|--------------------------------|---|-----------------|
| 830-6302 Color  | Y                              | light amber   | 454106-01       |
| 830-6303 Physical State                               | Y                              | Liquid  | "               |
| 830-6304 Odor   | Y                              | Musky   | "               |
| 830-6314 Oxidation/Reduction:Chemical Incompatability | Y                              | Slowly oxidized 1% $\text{KMnO}_4$ , slowly reduced by Zn, No reaction with $\text{NH}_4\text{H}_2\text{PO}_4$                      | "               |
| 830-6315 Flammability/Flame Extension                 | Y                              | Did not flash   | "               |
| 830-6316 Explodability                                | Y                              | No exotherm when held at 250°C for 2 hrs.   | "               |
| 830-6317 Storage Stability of Product                 | I                              | One year study in progress (see PR-Notice 92-5)   |                 |
| 830-6319 Miscibility                                  | NA                             | Product not mixed with hydrocarbon solvents   |                 |
| 830-6320 Corrosion Characteristics                    | I                              | One year study in progress  |                 |
| 830-6321 Dielectric Breakdown Constant                | NA                             |   |                 |
| 830-7000 pH   | Y                              | 4.69 @ 25°C   | 454106-01       |
| 830-7100 Viscosity                                    | Y                              | 20°C-<br>centipoise/rpm<br>60.1/6, 55.1/12,<br>59.6/30, 60.0/60<br>40°C-<br>centipoise/rpm<br>42.61/6, 41.4/12,<br>43.6/30, 41.9/60 | "               |
| 830-7300 Density                                      | Y                              | 1.0747  | "               |

**Explanations:** Y = The Requirements Were Fulfilled; N = The Requirements Were Not Fulfilled; NA = Not Applicable; G = Data Gap; U = Requires Upgrading; I = Incomplete or In Progress; W = Waived.





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
PREVENTION, PESTICIDES  
AND  
TOXIC SUBSTANCES

28/SEPT/2001

MEMORANDUM

Subject: Name of Pesticide Product: MON 78307  
EPA Reg. No. /File Symbol: 71995-EO  
DP Barcode: D278076  
Case No: 070602  
PC Code: 032201, 103601

From: Eugenia McAndrew, Biologist *Em*  
Technical Review Branch *Scr*  
Registration Division (7505C)

To: Vickie Walters, PM Team 25  
Herbicide Branch  
Registration Division (7505C)

Applicant: Monsanto Co.  
800 N. Lindbergh Blvd.  
St. Louis, MO 63167

FORMULATION FROM LABEL:

| <u>Active Ingredient(s):</u> |                                 | <u>% by wt.</u> |
|------------------------------|---------------------------------|-----------------|
| 103601                       | Glyphosate, isopropylamine salt | 25.0            |
| 032201                       | Diquat dibromide                | 0.73            |
| <u>Inert Ingredient(s):</u>  |                                 | <u>74.27</u>    |
| Total:                       |                                 | 100.00%         |

**ACTION REQUESTED:** PM requests review of acute toxicity data for MON 78307, EPA File Symbol 71995-EO.

**BACKGROUND:** Monsanto Co. has submitted a six pack of acute toxicity studies in support of registration of MON 78307, EPA File Symbol 71995-EO. The studies were assigned MRID numbers 454106-02 to -07. The studies were conducted at Springborn Laboratories, Inc., Spencerville, Ohio.

The acute oral, acute dermal, primary eye irritation and primary skin irritation studies were conducted on MON 78567 which is identical to MON 78307 except that the percent glyphosate is lower in the MON 78307 formulation. The acute inhalation and dermal sensitization studies were conducted on MON 78408 which contains higher levels of active and inert ingredients than MON 78307.

**RECOMMENDATIONS:** The six studies have been reviewed and are classified as acceptable.

The acute toxicity profile for MON 78307, EPA File Symbol 71995-EO, is as follows:

|                           |     |            |                |
|---------------------------|-----|------------|----------------|
| acute oral toxicity       | IV  | Acceptable | MRID 454106-02 |
| acute dermal toxicity     | IV  | Acceptable | MRID 454106-03 |
| acute inhalation toxicity | III | Acceptable | MRID 454106-04 |
| primary eye irritation    | III | Acceptable | MRID 454106-05 |
| primary skin irritation   | IV  | Acceptable | MRID 454106-06 |
| dermal sensitization      | No  | Acceptable | MRID 454106-07 |

**LABELING:** Based on the toxicity profile above, the following are the precautionary and first aid statements for this product as obtained from the Label Review System.

ID #: 071995-00029 MON 78307 Herbicide

SIGNAL WORD: CAUTION

**PRECAUTIONARY STATEMENTS:**

Harmful if inhaled. Causes moderate eye irritation. Avoid contact with eyes or clothing. Avoid breathing spray mist. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

**STATEMENT OF PRACTICAL TREATMENT (SOPT):**

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.



## DATA EVALUATION RECORD

**STUDY TYPE:** ACUTE ORAL TOXICITY TESTING (870.1100 formerly §81-1)

**Product Manager:** 25

**Reviewer:** Eugenia McAndrew

**TEST MATERIAL PURITY:** MON 78567; 0.73% diquat bromide, 19.01% glyphosate acid (a.e.) [25.6% isopropylamine salt of glyphosate]

**CITATION:** Bonnette, K. (2001) MON 78567; acute oral toxicity in rats. Springborn Laboratories, Inc., Spencerville, Ohio. Laboratory Report Number 3044.830. April 2, 2001. MRID 454106-02. Unpublished.

**SPONSOR:** Monsanto Co., 800 N. Lindbergh Blvd., St. Louis, MO 63167

**EXECUTIVE SUMMARY:** In an acute oral toxicity study, five young adult Hsd: Sprague-Dawley SD rats/sex (Weight: 297-320 g males; 201-230 g females; Source: Charles Rivers, Portage, MI, Boyertown, PA) were given a single oral dose of MON 78567 (0.73% diquat bromide, 19.01% glyphosate acid (a.e.) [25.6% isopropylamine salt of glyphosate]; Lot No. GLP-0102-10951-F; pale amber liquid) at 5000 mg/kg (limit dose). The test substance was administered as received. Animals were observed for clinical signs of toxicity and mortality for 14 days post dosing.

Oral LD<sub>50</sub> Males = > 5000 mg/kg (observed); Oral LD<sub>50</sub> Females = > 5000 mg/kg (observed)

MON 78567 is classified as Toxicity Category IV based on the calculated LD<sub>50</sub> value in both sexes.

All animals survived and gained bodyweight during the study. Clinical signs noted were mucoid stools, soft stools, few feces, dark material around the facial area and fecal staining. The animals recovered from these symptoms by day 3. No gross abnormalities were noted at necropsy.

This study is classified as Acceptable (870.1100) and satisfies the guideline requirement for an acute oral study in the rat.

**COMPLIANCE:** Signed and dated GLP, Quality Assurance and Data Confidentiality statements were provided.

### **RESULTS:**

| Dosage (mg/kg) | Number of Deaths/Number Tested |         |          |
|----------------|--------------------------------|---------|----------|
|                | Males                          | Females | Combined |
| 5000           | 0/5                            | 0/5     | 0/10     |

**OBSERVATIONS:** All animals survived and gained bodyweight during the study. Clinical signs noted were mucoid stools, soft stools, few feces, dark material around the facial area and fecal staining. The animals recovered from these symptoms by day 3.

**GROSS NECROPSY:** No gross abnormalities were noted at necropsy.



## DATA EVALUATION RECORD

**STUDY TYPE:** ACUTE DERMAL TOXICITY TESTING (870.1200 formerly §81-2)

**Product Manager:** 25

**Reviewer:** Eugenia McAndrew

**TEST MATERIAL PURITY:** MON 78567; 0.73% diquat bromide, 19.01% glyphosate acid (a.e.) [25.6% isopropylamine salt of glyphosate]

**CITATION:** Bonnette, K. (2001) MON 78567; acute dermal toxicity in rats. Springborn Laboratories, Inc., Spencerville, Ohio. Laboratory Report Number 3044.831. April 2, 2001. MRID 454106-03. Unpublished.

**SPONSOR:** Monsanto Co., 800 N. Lindbergh Blvd., St. Louis, MO 63167

**EXECUTIVE SUMMARY:** In an acute dermal toxicity study, five young adult Hsd: Sprague-Dawley SD rats/sex (Weight: 199-246 g males; 162-198 g females; Source: Harlan Sprague Dawley, Inc., Indianapolis, IN) were dermally exposed to a single application of MON 78567(0.73% diquat bromide, 19.01% glyphosate acid (a.e.) [25.6% isopropylamine salt of glyphosate]; Lot No. GLP-0102-10951-F; pale amber liquid) at 5000 mg/kg (limit dose) for 24 hours. The test substance was applied as received to approximately 10% of the total body surface area. Animals were observed for clinical signs of toxicity and mortality following patch removal on day 1 and once daily for 14 days.

Dermal LD<sub>50</sub> Males = > 5000 mg/kg (observed); Dermal LD<sub>50</sub> Females = > 5000 mg/kg (observed)

MON 78567 is classified as Toxicity Category IV based on the observed LD<sub>50</sub> values in both sexes.

All animals survived the study. Four animals lost weight the first week but all animals exceeded initial weights by the end of the study. Clinical signs included dark material around the nose/mouth, ocular discharge and urine stain. The animals recovered from these symptoms by day 9. Dermal irritation observed included grades 1 and 2 erythema and edema, desquamation, blanching, superficial lightening in focal and/or pinpoint areas and eschar at three sites. Dermal irritation outside of the test site was also noted in all animals. No gross abnormalities were noted at necropsy.

This study is classified as Acceptable (870.1200) and satisfies the guideline requirement for an acute dermal study in the rat.

**COMPLIANCE:** Signed and dated GLP, Quality Assurance and Data Confidentiality statements were provided.

### **RESULTS:**

| Dosage (mg/kg) | Number of Deaths/Number Tested |         |          |
|----------------|--------------------------------|---------|----------|
|                | Males                          | Females | Combined |
| 5000           | 0/5                            | 0/5     | 0/10     |

**OBSERVATIONS:** All animals survived the study. Four animals lost weight the first week but all animals exceeded initial weights by the end of the study. Clinical signs included dark material around the nose/mouth, ocular discharge and urine stain. The animals recovered from these symptoms by day 9. Dermal irritation observed included grades 1 and 2 erythema and edema, desquamation, blanching, superficial lightening in focal and/or pinpoint areas and eschar at three sites. Dermal irritation outside of the test site was also noted in all animals.

**GROSS NECROPSY:** No gross abnormalities were noted at necropsy.



## DATA EVALUATION RECORD

**STUDY TYPE:** ACUTE INHALATION TOXICITY TESTING (870.1300 formerly §81-3)

**Product Manager:** 25

**Reviewer:** Eugenia McAndrew

**TEST MATERIAL PURITY:** MON 78408; 1.46% diquat bromide, 18.46% glyphosate acid (a.e.) [24.9% isopropylamine salt of glyphosate]

**CITATION:** Bonnette, K. (2001) MON 78408; acute nose-only inhalation in rats. Springborn Laboratories, Inc., Spencerville, Ohio. Laboratory Report Number 3044.806. April 4, 2001. MRID 454106-04. Unpublished.

**SPONSOR:** Monsanto Co., 800 N. Lindbergh Blvd., St. Louis, MO 63167

**EXECUTIVE SUMMARY:** In an acute inhalation toxicity study, five young adult Hsd: Sprague-Dawley SD rats/sex (Weight: 209-232 g males; 169-193 g females; Source: Harlan Sprague Dawley, Inc., Indianapolis, IN) were exposed by nose only inhalation to MON 78408 (1.46% diquat bromide, 18.46% glyphosate acid (a.e.) [24.9% isopropylamine salt of glyphosate]; Lot No. GLP-0011-10690-F; pale amber liquid) at 0.49 mg/L, 0.89 mg/L and 2.33 mg/L for 4 hours. All animals were observed for clinical signs of toxicity and mortality during the exposure and for 14 days post exposure.

Inhalation LC<sub>50</sub> Males = 1.05 mg/L (95% C.L. 0.74-1.47 mg/L)  
Inhalation LC<sub>50</sub> Females = 1.05 mg/L (95% C.L. 0.74-1.47 mg/L)  
Inhalation LC<sub>50</sub> Combined = 1.04 mg/L (95% C.L. 0.85-1.27 mg/L)

(Calculated by Probit Analysis according to Litchfield-Wilcoxon approximation)

MON 78567 is classified as Toxicity Category III based on the observed LC<sub>50</sub> values in both sexes.

At 0.49 mg/L, all animals survived the study. Clinical signs noted included activity decrease, gasping, labored breathing, congested breathing, rales, few/no feces, rough coat, slight hair loss, unkempt appearance, distended abdomen, urine/fecal staining, dark material around the eyes/nose, clear/red ocular discharge, nasal discharge, eyelids partially closed and decreased food consumption. Some of these symptoms persisted through the end of the study. All animals lost weight during the first week. Six of the animals exceeded initial weight by the end of the study. At necropsy, three of the animals had no gross abnormalities. Observations in the remaining seven animals included dark material present round the nose and mouth, distended small and large intestines with gas or black rubbery material in entire tracts, stomach distended with gas, body fat depletion, wet matting around the eyes, hair loss around eyes/nose, dark red or mottled lungs with portions of all lobes irregularly shaped.

At 0.89 mg/ L, two animals died during the exposure and two females died by day 3. Clinical signs noted included those at the 0.49 mg/l exposure plus soft stools, piloerection, hunched posture, dehydration, dilated pupils, wobbly gait, shallow breathing, cool to touch, distended abdomen, grinding of teeth and scabs in mouth region. Two of the survivors gained weight and four lost weight. At necropsy, four of the survivors had no gross abnormalities. Observations in the decedents included abnormal contents in the duodenum, thin area of the diaphragm, portion of medial liver lobe misshapen, red mucoid material mixed with digesta in the jejunum, yellow staining of the urogenital and anogenital areas, abnormal content in small intestine, dark red lobes of lungs.

At 2.33 mg/ L, all of the animals died by day 4. Clinical signs noted included those at the 0.49 mg/l and 0.89 mg/L exposures plus prostration and slow breathing. At necropsy, observations included distended cecum, wet matting and dried material on haircoat, distended ileum, accentuated lobular markings on liver, dark red lungs, distended stomach with foci and abnormal contents, dark red throid gland.

The analytical chamber concentrations were 0.49, 0.89 and 2.33 mg/L. The mass median aerodynamic diameters were estimated to be 2.6  $\mu\text{m}$ , 2.5  $\mu\text{m}$  and 2.9  $\mu\text{m}$  respectively.

This study is classified as Acceptable (870.1300) and satisfies the guideline requirement for an acute inhalation study in the rat.

**COMPLIANCE:** Signed and dated GLP, Quality Assurance and Data Confidentiality statements were provided.

#### **RESULTS:**

| Exposure Concentration<br>mg/L<br>(Analytically Determined) | Number of Deaths/Number Tested |         |          |
|---|--------------------------------|---------|----------|
|   | Males                          | Females | Combined |
| 0.49  | 0/5                            | 0/5     | 0/10     |
| 0.89  | 2/5                            | 2/5     | 4/10     |
| 2.33  | 5/5                            | 5/5     | 10/10    |

| Chamber Atmosphere    |                    |     |
|-----------------------|--------------------|-----|
| Analytical conc. mg/L | MMAD $\mu\text{m}$ | GSD |
| 0.49                  | 2.6                | 2.4 |
| 0.89                  | 2.1                | 2.5 |
| 2.33                  | 2.9                | 2.4 |



| Chamber Environment <sup>a</sup> |         |
|----------------------------------|---------|
| Chamber Volume                   | 100 L   |
| Airflow                          | 40 LPM  |
| Temperature                      | 65-75°F |
| Relative Humidity                | 41-56%  |

<sup>a</sup>Nose only

**OBSERVATIONS:** At 0.49 mg/L, all animals survived the study. Clinical signs noted included activity decrease, gasping, labored breathing, congested breathing, rales, few/no feces, rough coat, slight hair loss, unkempt appearance, distended abdomen, urine/fecal staining, dark material around the eyes/nose, clear/red ocular discharge, nasal discharge, eyelids partially closed and decreased food consumption. Some of these symptoms persisted through the end of the study. All animals lost weight during the first week. Six of the animals exceeded initial weight by the end of the study.

At 0.89 mg/L, two animals died during the exposure and two females died by day 3. Clinical signs noted included those at the 0.49 mg/l exposure plus soft stools, piloerection, hunched posture, dehydration, dilated pupils, wobbly gait, shallow breathing, cool to touch, distended abdomen, grinding of teeth and scabs in mouth region. Two of the survivors gained weight and four lost weight.

At 2.33 mg/L, all of the animals died by day 4. Clinical signs noted included those at the 0.49 mg/l and 0.89 mg/L exposures plus prostration and slow breathing.

**GROSS NECROPSY:** At 0.49 mg/L, three of the animals had no gross abnormalities. Observations in the remaining seven animals included dark material present round the nose and mouth, distended small and large intestines with gas or black rubbery material in entire tracts, stomach distended with gas, body fat depletion, wet matting around the eyes, hair loss around eyes/nose, dark red or mottled lungs with portions of all lobes irregularly shaped.

At 0.89 mg/L, four of the survivors had no gross abnormalities. Observations in the decedents included abnormal contents in the duodenum, thin area of the diaphragm, portion of medial liver lobe misshapen, red mucoid material mixed with digesta in the jejunum, yellow staining of the urogenital and anogenital areas, abnormal content in small intestine, dark red lobes of lungs.

At 2.33 mg/L, observations included distended cecum, wet matting and dried material on haircoat, distended ileum, accentuated lobular markings on liver, dark red lungs, distended stomach with foci and abnormal contents, dark red thyroid gland.

## DATA EVALUATION RECORD

**STUDY TYPE:** PRIMARY EYE IRRITATION TESTING (870.2400 formerly §81-4)

**Product Manager:** 25

**Reviewer:** Eugenia McAndrew

**TEST MATERIAL PURITY:** MON 78567; 0.73% diquat bromide, 19.01% glyphosate acid (a.e.) [25.6% isopropylamine salt of glyphosate]

**CITATION:** Bonnette, K. (2001) MON 78567; primary eye irritation in rabbits. Springborn Laboratories, Inc., Spencerville, Ohio. Laboratory Report Number 3044.833. April 2, 2001. MRID 454106-05. Unpublished.

**SPONSOR:** Monsanto Co., 800 N. Lindbergh Blvd., St. Louis, MO 63167

**EXECUTIVE SUMMARY:** In a primary eye irritation study, 0.1 mL of MON 78567(0.73% diquat bromide, 19.01% glyphosate acid (a.e.) [25.6% isopropylamine salt of glyphosate]; Lot No. GLP-0102-10951-F; pale amber liquid) was placed into the conjunctival sac of the right eye of three adult New Zealand White rabbits (2 male and 1 female; Source: Myrtle's Rabbitry, Thompson Station, TN). All animals were observed for ocular irritation at 1, 24, 48 and 72 hours post-installation.

MON 78567 is classified as Toxicity Category III based on the observations and resolution of ocular irritation by 72 hours.

Iritis was noted in 3/3 eyes at the one hour observation resolving by 24 hours. Conjunctivitis was noted in 3/3 eyes resolving by 72 hours.

This study is classified as Acceptable (870.2400) and satisfies the guideline requirement for a primary eye irritation study in the rabbit.

**COMPLIANCE:** Signed and dated GLP, Quality Assurance and Data Confidentiality statements were provided.



**RESULTS:**

| Observations    | Number "positive"/number tested |     |     |     |
|-----------------|---------------------------------|-----|-----|-----|
|                 | Hours                           |     |     |     |
|                 | 1                               | 24  | 48  | 72  |
|                 | Unwashed eyes                   |     |     |     |
| Corneal Opacity | 0/3                             | 0/3 | 0/3 | 0/3 |
| Iritis          | 3/3                             | 0/3 | 0/3 | 0/3 |
| Conjunctivae:   |                                 |     |     |     |
| Redness*        | 3/3                             | 1/3 | 2/3 | 0/3 |
| Chemosis*       | 3/3                             | 0/3 | 0/3 | 0/3 |
| Discharge*      | 0/3                             | 1/3 | 1/3 | 0/3 |

\*Score of 2 or more required to be considered "positive."

**OBSERVATIONS:** Iritis was noted in 3/3 eyes at the one hour observation resolving by 24 hours. Conjunctivitis was noted in 3/3 eyes resolving by 72 hours.

## DATA EVALUATION RECORD

**STUDY TYPE:** PRIMARY DERMAL IRRITATION TESTING (870.2500 formerly §81-5)

**Product Manager:** 25

**Reviewer:** Eugenia McAndrew

**TEST MATERIAL PURITY:** MON 78567; 0.73% diquat bromide, 19.01% glyphosate acid (a.e.) [25.6% isopropylamine salt of glyphosate]

**CITATION:** Bonnette, K. (2001) MON 78567; primary skin irritation in rabbits. Springborn Laboratories, Inc., Spencerville, Ohio. Laboratory Report Number 3044.834. April 2, 2001. MRID 454106-06. Unpublished.

**SPONSOR:** Monsanto Co., 800 N. Lindbergh Blvd., St. Louis, MO 63167

**EXECUTIVE SUMMARY:** In a primary skin irritation study, three adult New Zealand White male rabbits (Source: Myrtle's Rabbitry, Thompson Station, TN) were dermally exposed to 0.5 mL of MON 78567 (0.73% diquat bromide, 19.01% glyphosate acid (a.e.) [25.6% isopropylamine salt of glyphosate]; Lot No. GLP-0102-10951-F; pale amber liquid) for 4 hours. The test substance was applied to a single 1 in<sup>2</sup> intact dose site on each animal. Animals were observed 1, 24, 48 and 72 hours after patch removal.

MON 78567 is classified as Toxicity Category IV based on the resolution of dermal irritation by 48 hours.

Primary Dermal Irritation Index (PDII) = 0.42 Very slight erythema was noted at all three test sites one hour after patch removal. All animals were free of dermal irritation by 48 hours.

This study is classified as Acceptable (870.2500) and satisfies the guideline requirement for an primary skin irritation study in the rabbit.

**COMPLIANCE:** Signed and dated GLP, Quality Assurance and Data Confidentiality statements were provided.

**RESULTS:** Primary Dermal Irritation Index (PDII) = 0.42

**OBSERVATIONS:** Very slight erythema was noted at all three test sites one hour after patch removal. All animals were free of dermal irritation by 48 hours.



## DATA EVALUATION RECORD

**STUDY TYPE:** DERMAL SENSITIZATION TESTING (870.2600 formerly §81-6)

**Product Manager:** 25

**Reviewer:** Eugenia McAndrew

**TEST MATERIAL PURITY:** MON 78408; 1.46% diquat bromide, 18.46% glyphosate acid (a.e.) [24.9% isopropylamine salt of glyphosate]

**CITATION:** Bonnette, K. (2001) MON 78408; dermal sensitization in guinea pigs. Springborn Laboratories, Inc., Spencerville, Ohio. Laboratory Report Number 3044.809. March 21, 2001. MRID 454106-07. Unpublished.

**SPONSOR:** Monsanto Co., 800 N. Lindbergh Blvd., St. Louis, MO 63167

**EXECUTIVE SUMMARY:** In a dermal sensitization study conducted with MON 78408 (1.46% diquat bromide, 18.46% glyphosate acid (a.e.) [24.9% isopropylamine salt of glyphosate]; Lot No. GLP-0011-10690-F; pale amber liquid), 30 young adult male and female Hartley-derived albino guinea pigs (Source: Hilltop Lab Animals, Scottdale, PA) were tested using methods based on those derived by Buehler. Preliminary testing was conducted to determine the correct concentrations for induction and challenge. Twenty test animals were induced with three applications (six hours/exposure, once per week for three weeks) of 0.3 mL of undiluted test substance. Twenty-seven days after the first induction dose, 0.3 mL of undiluted test substance was applied to the twenty test guinea pigs and to ten naive control guinea pigs for a six-hour challenge exposure. Reactions were scored 24 and 48 hours after each induction and after the challenge. A positive control study using  $\alpha$ -Hexylcinnamaldehyde was conducted within six months of the main study to validate the test system.

MON 78567 is classified as a non-sensitizer based on the results of this study.

Slight patchy erythema was noted at 2/ 20 test animal sites during the induction phase. No dermal irritation was observed at the test animal sites or the naive control sites following the challenge. Based on these results, the test substance is not considered to be a contact sensitizer in guinea pigs. The positive response observed in the  $\alpha$ -Hexylcinnamaldehyde study validates the test system used in this study.

This study is classified as Acceptable (870.2600) and satisfies the guideline requirement for an dermal sensitization study in the guinea pig.

**COMPLIANCE:** Signed and dated GLP, Quality Assurance and Data Confidentiality statements were provided.

**PROCEDURE:** In a dermal sensitization study conducted with MON 78408 (1.46% diquat bromide, 18.46% glyphosate acid (a.e.) [24.9% isopropylamine salt of glyphosate]; Lot No. GLP-0011-10690-F; pale amber liquid), 30 young adult male and female Hartley-derived albino guinea pigs (Source: Hilltop Lab Animals, Scottdale, PA) were tested using methods based on those derived by Buehler. Preliminary testing was conducted to determine the correct concentrations for induction and challenge. Twenty test animals were induced with three applications (six hours/exposure, once per week for three weeks) of 0.3 mL of undiluted test substance. Twenty-seven days after the first

induction dose, 0.3 mL of undiluted test substance was applied to the twenty test guinea pigs and to ten naive control guinea pigs for a six-hour challenge exposure. Reactions were scored 24 and 48 hours after each induction and after the challenge. A positive control study using  $\alpha$ -Hexylcinnamaldehyde was conducted within six months of the main study to validate the test system.

**RESULTS:** Slight patchy erythema was noted at 2/ 20 test animal sites during the induction phase. No dermal irritation was observed at the test animal sites or the naive control sites following the challenge. Based on these results, the test substance is not considered to be a contact sensitizer in guinea pigs. The positive response observed in the  $\alpha$ -Hexylcinnamaldehyde study validates the test system used in this study.



## ACUTE TOX ONE-LINERS

1. **DP BARCODE:** D278076
2. **PC CODE:** 103601, 032201
3. **CURRENT DATE:** 28/SEPT/2001
4. **TEST MATERIAL:** MON 78567 (0.73% diquat bromide, 19.01% glyphosate acid (a.e.) [25.6% isopropylamine salt of glyphosate]; Lot No. GLP-0102-10951-F; pale amber liquid)

<sup>a</sup>MON 78408 (1.46% diquat bromide, 18.46% glyphosate acid (a.e.) [24.9% isopropylamine salt of glyphosate]; Lot No. GLP-0011-10690-F; pale amber liquid)

| Study/Species/Lab<br>Study # /Date  | MRID      | Results  | Tox. Cat. | Core Grade |
|---|-----------|--|-----------|------------|
| Acute oral toxicity/rat<br>Springborn Laboratories, Inc.<br>3044.830/4-2-01                       | 454106-02 | LD <sub>50</sub> > 5000 mg/kg (males females combined)       | IV        | A          |
| Acute dermal toxicity/rat<br>Springborn Laboratories, Inc.<br>3044.831/4-2-01                     | 454106-03 | LD <sub>50</sub> > 5000 mg/kg (males females combined)       | IV        | A          |
| <sup>a</sup> Acute inhalation toxicity/rat<br>Springborn Laboratories, Inc.<br>3044.806/4-4-01    | 454106-04 | LC <sub>50</sub> > 1.04 mg/L (males females combined)        | III       | A          |
| Primary eye irritation/rabbit<br>Springborn Laboratories, Inc.<br>3044.833/4-2-01                 | 454106-05 | Iritis and conjunctivitis in 3/3 eyes resolving by 72 hours. | III       | A          |
| Primary dermal irritation/rabbit<br>Springborn Laboratories, Inc.<br>3044.834/4-2-01              | 454106-06 | PDII = 0.42 Mild irritant                                    | IV        | A          |
| <sup>a</sup> Dermal sensitization/guinea pig<br>Springborn Laboratories, Inc.<br>3044.809/3-21-01 | 454106-07 | Non-sensitizer   | —         | A          |

Core Grade Key: **A** = Acceptable, **S** = Supplementary, **U** = Unacceptable, **V** = Self Validated



MONSANTO COMPANY  
600 13TH STREET, NW  
SUITE 660  
WASHINGTON, D.C. 20005  
<http://www.monsanto.com>

May 11, 2001

Hand Delivered

Document Processing Center (APPL)  
Office of Pesticide Programs  
U.S. Environmental Protection Agency  
Room 266A, Crystal Mall 2,  
1921 Jefferson Davis Highway  
Arlington, VA 22202-4501

Attention: Mr. Dan Rosenblatt  
Acting Product Manager (Team 25)

Subject: **MON 78307 Herbicide (EPA Reg. No. 71995-~~XXX~~). Request for registration of new product.**

Dear Mr. Rosenblatt:

Monsanto herein submits eight volumes, as R.D. 1537, in support of our application to register a new pesticide product, MON 78307 herbicide. MON 78307 is a soluble concentrate formulation containing the active substances glyphosate, in the form of its isopropylamine salt, and diquat dibromide.

The administrative volume contains Application for Pesticide Registration and other associated administrative materials, Confidential Statements of Formula, and a proposed master label. In addition, product chemistry and acute toxicology data are provided in support of this application.

Thank you in advance for your efforts to register MON 78307. Should you require any additional information or have any questions, please contact Dr. Marsha Gray at our Washington office (202) 783-2460 or me directly at (314) 694-8785 or [rmmann@monsanto.com](mailto:rmmann@monsanto.com).

Sincerely,

Rhonda M. Mannion  
Registration Manager

cc: V. Walters  
M. Gray  
Mannion reading file  
File room copy



MAY 25 2001

U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs

MONSANTO COMPANY  
600 13TH ST, NW., SUITE 660  
WASHINGTON, DC 20005

Report of Analysis for Compliance with PR Notice 86-5

Thank you for your transmittal of 05/17/01. Our staff has completed a preliminary analysis of the material. The results are provided as follows:

Your submittal was found to be in full compliance with the standards for submission of data contained in PR Notice 86-5. A copy of your bibliography is enclosed, annotated with Master Record ID's (MRIDs) assigned to each document submitted. Please use these numbers in all future references to these documents. Thank you for your cooperation. If you have any questions concerning this data submission, please raise them with the cognizant Product Manager, to whom the data have been released.

TRANSMITTAL DOCUMENT

SUBMITTED BY

Monsanto Company  
Lawn & Garden Products  
800 N. Lindbergh Blvd.  
St. Louis, MO 63167

REGULATORY ACTION IN SUPPORT OF WHICH THE PACKAGE IS SUBMITTED

Application for Registration of MON 78307 Herbicide

DATA GUIDELINES

Series 61, 62, and 63 [OPPTS Series 830]  
81-1, 81-2, 81-3, 81-4, 81-5, 81-6 [OPPTS Series 870.1200 - 870.2600]

TRANSMITTAL DATE

11 May 2001

SUBMISSION NUMBER

R.D. 1537, 8 volumes

LIST OF SUBMITTED DATA:

| Volume | Monsanto Study Number | Author             | Title  |
|--------|-----------------------|--------------------|--|
| 1      | R.D. 1537             | Mannion, Rhonda M. | Administrative Materials in Support of Registration of MON 78307 Herbicide |
|        |                       |                    | MRID _____   |
| 2      | MSL 17135             | Mierkowski, M.     | Product Chemistry Data to Support the Registration of MON 78307 Herbicide  |
|        |                       |                    | MRID <u>45410601</u>   |
| 3      | SB-2001-026           | Bonnette, K.L.     | An Acute Oral Toxicity Study in Rats with MON 78567                        |
|        |                       |                    | MRID <u>45410602</u>   |



STUDY TITLE

Administrative Materials in Support of Registration of MON 78307 Herbicide

DATA REQUIREMENT

Administrative Materials for Product Registration

Chemical Identity OPPTS 860.1100

Directions for Use OPPTS 860.1200

Proposed Tolerances OPPTS 860.1550

Reasonable Grounds OPPTS 860.1560

AUTHOR

Rhonda M. Mannion

REGISTRANT SUBMISSION DATE

11 May 2001

REGISTRANT ADDRESS

Monsanto Co.  
800 N. Lindbergh Blvd.  
St. Louis, MO 63167

PROJECT NO.

R.D. No. 1537

Vol. 1 OF 8

0001 OF 0072



## STATEMENT OF DATA CONFIDENTIALITY CLAIMS

Information claimed as confidential on the basis of its falling within the scope of FIFRA 10(d)(1)(A), (B), or (C) has been removed to a Confidential Attachment, and is cited by cross-reference number in the body of the text.

We submit this material to the United States Environmental Protection Agency (EPA) specifically under provisions contained in FIFRA as amended, and thereby consent to use and disclosure of this material by EPA according to FIFRA. Some pages of this report may be stamped with the following: CONTAINS TRADE SECRET OR OTHERWISE CONFIDENTIAL INFORMATION OF MONSANTO COMPANY. This claim of confidentiality is not meant to convey supplemental claims of confidentiality regarding data subject to disclosure under sections 10(d) and 10(e) of FIFRA. In submitting this material to the EPA according to method and format requirements contained in PR Notice 86-5, we do not waive any protection of rights involving this material that would have been claimed by the company if this material had not been submitted to the EPA.

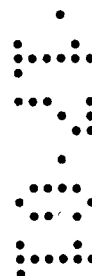
COMPANY: Monsanto Company

COMPANY AGENT:

Rhonda M Mann (signature)

Rhonda M. Mannion, Registration Manager (printed name and title)

11 May 2001 (date)





GLP COMPLIANCE STATEMENT

MONSANTO COMPANY

This volume contains administrative and descriptive information and is not subject to the requirements of Title 40 Code of Federal Regulations, Part 160, Good Laboratory Practices Standards.

Sponsor/Submitter:

Rhonda M Mann (signature)

Rhonda M. Mannion, Registration Manager (printed name and title)

11 May 2001 (date)

00030F0072

## Table of Contents

---

### Part I Administrative Materials

|   |    |
|---|----|
| Application for Pesticide Registration (8570-1).....                          | 6  |
| Child-Resistant Packaging Certification Statement.....                        | 7  |
| Formulation Exemption Statement (8570-27) .....                               | 8  |
| Self Certification Statement for Physical/Chemical Properties (8570-37) ..... | 9  |
| Summary of Physical/Chemical Properties (8570-36).....                        | 10 |
| Certification with Respect to Citation of Data (8570-34).....                 | 11 |
| Data Matrix (EPA form 8570-35).....   | 12 |

### Part II Petition for Registration of a New Pesticide Product

|  |    |
|--|----|
| A. Composition of the Pesticide Product.....           | 17 |
| Explanation of Confidential Statement of Formula ..... | 18 |
| CSF - Basic Formulation (8570-4).....                  | 19 |
| CSF - Alternate Formulation (8570-4).....              | 20 |
| B. Directions for Use                                  |    |
| Explanation of Label Text Source.....                  | 22 |
| Proposed MON 78307 Master Labeling Text .....          | 24 |
| C. Data Reference List .....                           | 38 |
| D. Residue Removal Procedures.....                     | 69 |
| E. Effectiveness Data .....                            | 70 |
| F. Tolerances.....                                     | 71 |
| G. Reasonable Grounds .....                            | 72 |

Confidential Attachment

Part I  
**Administrative Materials**

000576072





United States  
Environmental Protection Agency  
Washington, DC 20460

☒ Registration  
☐ Amendment  
☐ Other

OPP Identifier Number

277400

### Application for Pesticide - Section I

|   |  |  |
|---|--|--|
| 1. Company/Product Number<br>71995-xxx <i>E0</i>  | 2. EPA Product Manager<br>Mr. Dan Rosenblatt <input checked="" type="checkbox"/> | 3. Proposed Classification<br><input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted   |
| 4. Company/Product (Name)<br>MON 78307 herbicide  | PM#<br>25 <input checked="" type="checkbox"/>                                    |  |
| 5. Name and Address of Applicant (Include ZIP Code)<br>Monsanto Company<br>600 13th Street N.W., Suite 660<br>Washington, DC 20005<br><input type="checkbox"/> Check if this is a new address |  | 6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to:<br>EPA Reg. No. _____<br>Product Name _____ |

### Section - II

|  |  |
|--|--|
| <input type="checkbox"/> Amendment - Explain below.                            | <input type="checkbox"/> Final printed labels in response to Agency letter dated _____ |
| <input type="checkbox"/> Resubmission in response to Agency letter dated _____ | <input type="checkbox"/> "Me Too" Application.   |
| <input type="checkbox"/> Notification - Explain below.                         | <input type="checkbox"/> Other - Explain below.  |

**Explanation:** Use additional page(s) if necessary. (For section I and Section II.)  
Application to register MON 78307 herbicide.

### Section - III

|  |  |   |                                      |   |                   |
|--|--|---|--------------------------------------|---|-------------------|
| 1. Material This Product Will Be Packaged In:  |  |   |                                      | 2. Type of Container  |                   |
| Child-Resistant Packaging<br><input checked="" type="checkbox"/> Yes<br><input type="checkbox"/> No  | Unit Packaging<br><input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No | Water Soluble Packaging<br><input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No |                                      | <input checked="" type="checkbox"/> Metal<br><input type="checkbox"/> Plastic<br><input type="checkbox"/> Glass<br><input type="checkbox"/> Paper<br><input type="checkbox"/> Other (Specify) _____ |                   |
| * Notification must be submitted   |  | If "Yes" Unit Packaging wgt.  | No. per container                    | If "Yes" Package wgt  | No. per container |
| 3. Location of Net Contents Information<br><input checked="" type="checkbox"/> Label <input type="checkbox"/> Container  |  | 4. Size(s) Retail Container<br>16, 32, 40, 64 fl. oz.   |                                      | 5. Location of Label Directions<br><input checked="" type="checkbox"/> on packaging   |                   |
| 6. Manner in Which Label is Affixed to Product<br><input checked="" type="checkbox"/> Lithograph<br><input type="checkbox"/> Paper glued<br><input type="checkbox"/> Stenciled |  |   | <input type="checkbox"/> Other _____ |   |                   |

### Section - IV

|  |                                  |   |   |
|--|----------------------------------|---|---|
| 1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)  |                                  |   |   |
| Name<br>Dr. Marsha Gray  | Title<br>Registration Manager    | Telephone No. (Include Area Code)<br>(202) 783-2460 |   |
| <b>Certification</b><br>I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law. |                                  |   | 6. Date Application Received<br><br>(Stamped) |
| 2. Signature<br><i>Rhonda M. Mann</i>  | 3. Title<br>Registration Manager |   |   |
| 4. Typed Name<br>Rhonda M. Mann  | 5. Date<br><i>11 May 2001</i>    |   |   |

Monsanto Company  
Lawn & Garden Products  
800 N. Lindbergh Blvd.  
St. Louis, Missouri 63167

Submitted to Support the Registration of  
MON 78307 Herbicide  
EPA Reg. No. 71995-XXX *EO*

**CHILD-RESISTENT PACKAGING CERTIFICATION STATEMENT**

I hereby certify that the packaging that will be used for this product meets the standards of 40 CFR 157.32.

Company Agent: Rhonda M. Mannion

Title: Registration Manager

Date: *11 May 2001*

Signature: *Rhonda M Mann*



United States  
Environmental Protection Agency  
Washington, DC 20460  
**Formulator's Exemption Statement**  
(40 CFR 152.85)

**Applicant's Name and Address**

Monsanto Company  
Lawn & Garden Products  
600 13th Street N.W., Suite 660  
Washington, DC 20005

**EPA File Symbol/Registration Number**

71995-XXXX-*EO*

**Product Name**

MON 78307 Herbicide

**Date of Confidential Statement of Formula (EPA Form 8570-4)**

4 May 2001

As an authorized representative of the applicant for registration of the product identified above, I certify that:

**(1) This product contains the following active ingredient(s):**

diquat dibromide (CAS Reg. No. 85-00-7)

glyphosate in the form of its isopropylamine salt (CAS Reg. No. 38641-94-0)

(2) Of these, each active ingredient listed in paragraph (4) is present solely as the result of the use of that active ingredient in the manufacturing, formulation or repackaging another product which contains that active ingredient which is registered under FIFRA Section 3, is purchased by us from another producer, and is labeled for at least each use for which my product is proposed to be labeled.

(3) Indicate by checking (A) or (B) below which paragraph applies:

☐ (A) An accurate Confidential Statement of Formula (EPA FORM 8570-4) for the above identified product is attached to this statement. That formula statement indicates, by company name, registration number, and product name, the source of the active ingredient(s) listed in paragraph (1).

OR

☒ (B) The Confidential Statement of Formula (CSF) (EPA Form 8570-4) referenced above and on file with the EPA is complete, current, and accurate and contains the information required on the current CSF.

(4) The following active ingredients in this product qualify for the formulator's exemption.

| Source   |   |   |
|--|---|---|
| Active Ingredient  | Product Name  | Registration Number   |
| glyphosate, isopropylamine salt  | MON 0139  | 524-333   |
| diquat dibromide   | <div style="background-color: black; width: 100%; height: 50px;"></div> | <div style="background-color: black; width: 100%; height: 50px;"></div> |
| <p>*Product ingredient source information may be entitled to confidential treatment*</p> |   |   |
| Signature<br><i>Rhonda M. Mann</i>   | Name and Title<br>Rhonda M. Mannion, Registration Manager               | Date<br><i>11 May 2001</i>  |





## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

401 M Street, S.W.  
WASHINGTON, D.C. 20460

**Paperwork Reduction Act Notice:** The public reporting burden for this collection of information is estimated to average 0.25 hours per response for registration and 0.25 hours per response for reregistration and special review activities, including time for reading the instructions and completing the necessary forms. Send comments regarding burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, OPPE Information Management Division (2137), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, DC 20460. Do not send the completed form to this address.

**SELF-CERTIFICATION STATEMENT FOR THE  
PHYSICAL/CHEMICAL PROPERTIES (PR NOTICE 98-1)**

Product Name: MON 78307 Herbicide

Reg. No./File Symbol No. 71995-xxx *EO*  
(if known) or Company No.**SELF-CERTIFICATION STATEMENT:**

I certify that the reported information on the "Summary Form" represents a true and accurate record of the test results of studies generated or owned by (Company Name): Monsanto Company

\_\_\_\_\_ and that the values of the properties reported are reliable.

I further certify that such data was generated in substantial conformity with OPPTS Test Guidelines Series 830 Product Properties, applicable to my product, and in effect at the time of submission.

As a condition of registration, EPA may, by order, (1) withdraw a pending registration, (2) suspend the registration of this product without opportunity for hearing, or (3) assess civil penalties provided for in section 14 of FIFRA for violations of section 12(a)(2)(N) of FIFRA without opportunity for hearing, if I have not submitted to EPA within thirty (30) days of receipt of a request by the Agency, or within a specified time agreed to by the Agency, test results of studies summarized in the "Summary Form."

As a condition of registration, EPA may, by order, (1) withdraw a pending registration, (2) suspend the registration of this product without opportunity for hearing, or (3) assess civil penalties provided for in section 14 of FIFRA for violations of sections 12(a)(2)(N), 12(a)(2)(Q), or 12(a)(2)(R) of FIFRA without opportunity for hearing, if I fail to provide to EPA within thirty (30) days of receipt of a notification of error, or within a specified time agreed to by the Agency, information that EPA determines is required to correct the error.

Type Applicant's Name:

Rhonda M. Mannion

Title:

Registration Manager

Telephone No.

(314) 694-8785

Applicant's Signature:

*Rhonda M Mann*

Date:

*11 May 2001*

EPA Form 8570-37 (07/JAN/1998)

A8ack-2

00090F0072



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**401 M Street, S.W.**  
**WASHINGTON, D.C. 20460**

**Paperwork Reduction Act Notice:** The public reporting burden for this collection of information is estimated to average 1 hour per response for registration activities and 1 hour per response for reregistration and special review activities, including time for reading the instructions and completing the necessary forms. Send comments regarding burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, OPPE Information Management Division (2137), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, DC 20460. Do not send the completed form to this address.

**SUMMARY OF THE PHYSICAL/CHEMICAL PROPERTIES (PR Notice 98-1)**

|  |   |  |
|--|---|--|
| 1. PRODUCT NAME: MON 78307 Herbicide   |   | 2. Reg. No. 71995-xxx <i>EO</i>                      |
| 3. COMPANY NAME: Monsanto Company, Lawn & Garden Products  |   | 4. SUBMISSION DATE:<br>May 11, 2001                  |
| 5. FIRST SUBMISSION <input checked="" type="checkbox"/><br>6. RESUBMISSION <input type="checkbox"/>                        | 7. PESTICIDE TYPE: Herbicide  | 10. REGISTRATION <input checked="" type="checkbox"/> |
| 8. FORMULATED MANUFACTURING-USE PRODUCT <input type="checkbox"/> or 9. END-USE PRODUCT <input checked="" type="checkbox"/> |   | 11. REREGISTRATION <input type="checkbox"/>          |
| 13. PRODUCT MANAGER OR CHEMICAL REVIEW MANAGER #/NAME (IF KNOWN):<br>Mr. Dan Rosenblatt                                    |   | 12. REREG CASE #                                     |
| 14. GUIDELINE REFERENCE<br>NO.(GRN)/TITLE  | 15. VALUE or QUALITATIVE DESCRIPTION/METHOD(s) USED<br>WHERE APPLICABLE AND REFERENCES  | 16. MRID or REPORT NO.                               |
| <b>Group B, Series 830-Physical and Chemical Properties (40 CFR 158.190)</b>   |   |  |
| -6302 Color  | Light amber   | MSL-17135  |
| -6303 Physical State   | Liquid  | MSL-17135  |
| -6304 Odor   | Musky   | MSL-17135  |
| -6314 Oxidation/Reduction:<br>Chemical Incompatibility   | Slowly reduced by Zinc. Slowly oxidized by 1% KMnO4. No reaction with NH4H2PO4. 5:1 ratio EP:reagent.   | MSL-17135  |
| -6315 Flammability/Flame<br>Extension  | Did not flash below 212F (100C). Pensky-Martens closed tester. ASTM-D-93-B.   | MSL-17135  |
| -6316 Explodability  | No exotherm observed when held @ 250C for 2 hours. DSC using ASTM E-487, E-537 & E-967.   | MSL-17135  |
| -6317 Storage Stability  | Accelerated aging test complete, no degradation when held @ 55C for 2 weeks. One year study to be initiated. T0: 17.92% glyphosate, 0.74% diquat T(2wk): 17.94% glyphosate, 0.74% diquat. | MSL-17135  |
| -6319 Miscibility  | Not required, not an emulsifiable liquid.   | MSL-17135  |
| -6320 Corrosion Characteristics  | One year study to be initiated.   | MSL-17135  |
| -6321 Dielectric Breakdown<br>Voltage  | Not required, not used in or around electrical equipment.   | MSL-17135  |
| -7000 pH   | 4.69 @ 25.1C in 1% aqueous solution (std dev = 0.014)   | MSL-17135  |
| -7100 Viscosity  | centipoise/rpm: 60.1/6, 55.1/12, 59.6/30 and 60.0/60 @ 20C.   | MSL-17135  |
| -7300 Density/Relative Density/<br>Bulk Density  | 1.0747 g/mL @ 20C using digital density meter (std dev = 0.0001)  | MSL-17135  |





**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**401 M Street, S.W.**  
**WASHINGTON, D.C. 20460**

**Paperwork Reduction Act Notice:** The public reporting burden for this collection of information is estimated to average 1.25 hours per response for registration and 0.25 hours per response for reregistration and special review activities, including time for reading the instructions and completing the necessary forms. Send comments regarding burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, OPPE Information Management Division (2137), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, DC 20460. Do not send the completed form to this address.

**Certification with Respect to Citation of Data**

Applicant's/Registrant's Name, Address, and Telephone Number **Monsanto Company**  
**600 13th Street, N.W., Suite 660 Washington, DC 20005 (202)783-2460**

EPA Registration Number/File Symbol  
**71995-XXX EO**

Active Ingredient(s) and/or representative test compound(s)  
**glyphosate and diquat**

Date  
**May 11, 2001**

General Use Pattern(s) (list all those claimed for this product using 40 CFR Part 158)  
**non-selective herbicide**

Product Name  
**MON 78307 Herbicide**

**NOTE:** If your product is a 100% repackaging of another purchased EPA-registered product labeled for all the same uses on your label, you do not need to submit this form. You must submit the Formulator's Exemption Statement (EPA Form 8570-27).

☐ I am responding to a Data-Call-In Notice, and have included with this form a list of companies sent offers of compensation (the Data Matrix form should be used for this purpose).

**SECTION I: METHOD OF DATA SUPPORT** (Check one method only)

☐ I am using the cite-all method of support, and have included with this form a list of companies sent offers of compensation (the Data Matrix form should be used for this purpose).

☒ I am using the selective method of support (or cite-all option under the selective method), and have included with this form a completed list of data requirements (the Data Matrix form must be used).

**SECTION II: GENERAL OFFER TO PAY**

[Required if using the cite-all method or when using the cite-all option under the selective method to satisfy one or more data requirements]

☐ I hereby offer and agree to pay compensation, to other persons, with regard to the approval of this application, to the extent required by FIFRA.

**SECTION III: CERTIFICATION**

I certify that this application for registration, this form for reregistration, or this Data-Call-In response is supported by all data submitted or cited in the application for registration, the form for reregistration, or the Data-Call-In response. In addition, if the cite-all option or cite-all option under the selective method is indicated in Section I, this application is supported by all data in the Agency's files that (1) concern the properties or effects of this product or an identical or substantially similar product, or one or more of the ingredients in this product; and (2) is a type of data that would be required to be submitted under the data requirements in effect on the date of approval of this application if the application sought the initial registration of a product of identical or similar composition and uses.

☒ I certify that for each exclusive use study cited in support of this registration or reregistration, that I am the original data submitter or that I have obtained the written permission of the original data submitter to cite that study.

I certify that for each study cited in support of this registration or reregistration that is not an exclusive use study, either: (a) I am the original data submitter; (b) I have obtained the permission of the original data submitter to use the study in support of this application; (c) all periods of eligibility for compensation have expired for the study; (d) the study is in the public literature; or (e) I have notified in writing the company that submitted the study and have offered (i) to pay compensation to the extent required by sections 3(c)(1)(F) and/or 3(c)(2)(B) of FIFRA; and (ii) to commence negotiations to determine the amount and terms of compensation, if any, to be paid for the use of the study.

I certify that in all instances where an offer of compensation is required, copies of all offers to pay compensation and evidence of their delivery in accordance with sections 3(c)(1)(F) and/or 3(c)(2)(B) of FIFRA are available and will be submitted to the Agency upon request. Should I fail to produce such evidence to the Agency upon request, I understand that the Agency may initiate action to deny, cancel or suspend the registration of my product in conformity with FIFRA.

I certify that the statements I have made on this form and all attachments to it are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

Signature

*Rhonda M Mann*

Date

*11 May 2001*

Typed or Printed Name and Title

Rhonda M. Mannion  
 Registration Manager





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
401 M Street, S.W.  
WASHINGTON, D.C. 20460

Form Approved OMB No. 2070-0060

**Paperwork Reduction Act Notice:** The public reporting burden for this collection of information is estimated to average 0.25 hours per response for registration activities and 0.25 hours per response for reregistration and special review activities, including time for reading the instructions and completing the necessary forms. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, OPPE Information Management Division (2137), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, DC 20460. Do not send the form to this address.

DATA MATRIX

|   |   |                         |                     |    |             |
|---|---|-------------------------|---------------------|----|-------------|
| Date                                    | May 11, 2001  | EPA Reg No./File Symbol | 71995-XXX           | EO | Page 1 of 2 |
| Applicant's/Registrant's Name & Address | Monsanto Company<br>600 13th Street, N.W., Suite 660 Washington, DC 20005 (202)783-2460 | Product                 | MON 78307 Herbicide |    |             |

Ingredient glyphosate and diquat

| Guideline Reference Number             | Guideline Study Name   | MRID Number     | Submitter | Status | Note |
|--|--|-----------------|-----------|--------|------|
| 860.1100, 860.1200, 860.1550, 860.1560 | Administrative Materials in Support of Registration of MON 78307 Herbicide | This submission | Monsanto  | OWN    |      |
| Series 61, 62, and 63                  | Product Chemistry Data to Support the Registration of MON 78307 Herbicide  | This submission | Monsanto  | OWN    |      |
| 81-1                                   | An Acute Oral Toxicity Study in Rats with MON 78567                        | This submission | Monsanto  | OWN    |      |
| 81-2                                   | An Acute Dermal Toxicity Study in Rats with MON 78567                      | This submission | Monsanto  | OWN    |      |
| 81-3                                   | An Acute Nose-Only Inhalation Study in Rats with MON 78408                 | This submission | Monsanto  | OWN    |      |

|           |                          |                |   |      |             |
|-----------|--------------------------|----------------|---|------|-------------|
| Signature | <i>Rhonda M. Mannion</i> | Name and Title | Rhonda M. Mannion<br>Registration Manager | Date | 11 May 2001 |
|-----------|--------------------------|----------------|---|------|-------------|

Agency Internal Use Copy

EPA Form 8570-35 (9-97) Electronic and Paper versions available. Submit only Paper version.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
401 M Street, S.W.  
WASHINGTON, D.C. 20460

**Paperwork Reduction Act Notice:** The public reporting burden for this collection of information is estimated to average 0.25 hours per response for registration activities and 0.25 hours per response for reregistration and special review activities, including time for reading the instructions and completing the necessary forms. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, OPPE Information Management Division (2137), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, DC 20460. Do not send the form to this address.

**DATA MATRIX**

|   |   |                         |           |   |                     |
|---|---|-------------------------|-----------|---|---------------------|
| Date                                    | May 11, 2001  | EPA Reg No./File Symbol | 71995-XXX | EO  | Page 2 of 2         |
| Applicant's/Registrant's Name & Address | Monsanto Company<br>600 13th Street, N.W., Suite 660 Washington, DC 20005 (202)783-2460 |                         |           |   |                     |
| Product                                 | MON 78307 Herbicide   |                         |           |   |                     |
| Ingredient                              | glyphosate and diquat   |                         |           |   |                     |
| Guideline Reference Number              | Guideline Study Name  | MRID Number             | Submitter | Status  | Note                |
| 81-4                                    | A Primary Eye Irritation Study in Rabbits with MON 78567                                | This submission         | Monsanto  | OWN   |                     |
| 81-5                                    | A Primary Skin Irritation Study in Rabbits with MON 78567                               | This submission         | Monsanto  | OWN   |                     |
| 81-6                                    | A Dermal Sensitization Study in Guinea Pigs with MON 78408                              | This submission         | Monsanto  | OWN   |                     |
| all other data requirements             | see data matrix list provided in Section C of this application                          |                         |           |   |                     |
| Signature                               | Rhonda M. Mannion   |                         |           | Name and Title<br>Rhonda M. Mannion<br>Registration Manager | Date<br>11 May 2001 |

EPA Form 8570-35 (9-97) Electronic and Paper versions available. Submit only Paper version.

Agency Internal Use Copy

00130F0072

Section C  
**Data Reference List**

0038 OF 0072



PRODUCT  
CHEMISTRY40 CFR  
158.150-158.190  
(830 Series)

| NO.   | STUDY NAME  | DATA REQ'D | EPA MRID NUMBER | SUBMIT DATE | MONSANTO DOCUMENT NUMBER | SUBMITTER | STATUS |
|---|---|------------|-----------------|-------------|--------------------------|-----------|--------|
| <b>PRODUCT IDENTITY:</b>                          |   |            |                 |             |                          |           |        |
| 61-1  | Product Identity & Disclosure of Ingredients (MP)     | +          | 41228201        | 08/30/1989  | R.D. 953                 | Monsanto  | OWN    |
|   | Product Identity & Disclosure of Ingredients (MP)     | +          | 161333          | 06/30/1986  | R.D. 690                 | Monsanto  | OWN    |
| 61-2  | Beginning Materials and Manufacturing Process (MP)    | +          | 41228201        | 08/30/1989  | R.D. 953                 | Monsanto  | OWN    |
|   | Beginning Materials and Manufacturing Process (MP)    | +          | 161333          | 06/30/1986  | R.D. 690                 | Monsanto  | OWN    |
| 61-3  | Formation of Impurities (MP)                          | +          | 41228201        | 08/30/1989  | R.D. 953                 | Monsanto  | OWN    |
|   | Formation of Impurities (MP)                          | +          | 161333          | 06/30/1986  | R.D. 690                 | Monsanto  | OWN    |
| <b>ANALYSIS AND CERTIFICATION OF INGREDIENTS:</b> |   |            |                 |             |                          |           |        |
| 62-1  | Preliminary Analysis (MP)                             | +          | 41228202        | 08/30/1989  | R.D. 953                 | Monsanto  | OWN    |
| 62-2  | Certification of Limits (MP)                          | +          | 41228202        | 08/30/1989  | R.D. 953                 | Monsanto  | OWN    |
|   | Certification of Limits (MP)                          | +          | 161333          | 06/30/1986  | R.D. 690                 | Monsanto  | OWN    |
| 62-3  | Analytical Methods for Enforcement of Limits (MP)     | +          | 41228202        | 08/30/1989  | R.D. 953                 | Monsanto  | OWN    |
|   | Analytical Methods for Enforcement of Limits (MP)     | +          | 161333          | 06/30/1986  | R.D. 690                 | Monsanto  | OWN    |
| <b>PHYSICAL AND CHEMICAL CHARACTERISTICS:</b>     |   |            |                 |             |                          |           |        |
| 63-2  | Color (MP & TGAI)                                     | +          | 161333          | 06/30/1986  | R.D. 690                 | Monsanto  | OWN    |
| 63-3  | Physical State (MP & TGAI)                            | +          | 161333          | 06/30/1986  | R.D. 690                 | Monsanto  | OWN    |
| 63-4  | Odor (MP & TGAI)                                      | +          | 161333          | 06/30/1986  | R.D. 690                 | Monsanto  | OWN    |
| 63-5  | Melting Point (TGAI)                                  | +          | 51977           | 06/01/1976  | R.D. 102                 | Monsanto  | OWN    |
| 63-6  | Boiling Point (TGAI)                                  | NR         |                 |             |                          |           |        |
| 63-7  | Density, Bulk Density or Specific Gravity (MP & TGAI) | +          | 161333          | 06/30/1986  | R.D. 690                 | Monsanto  | OWN    |
| 63-8  | Solubility (TGAI or PAI)                              | +          | 161333          | 06/30/1986  | R.D. 690                 | Monsanto  | OWN    |
| 63-9  | Vapor Pressure (TGAI or PAI)                          | +          | 41096101        | 05/10/1989  | R.D. 924                 | Monsanto  | OWN    |
| 63-10   | Dissociation Constant (TGAI or PAI)                   | +          | 161333          | 06/30/1986  | R.D. 690                 | Monsanto  | OWN    |
| 63-11   | Octanol/Water Partition Coefficient (PAI)             | +          | 108192          | 06/05/1978  | R.D. 181                 | Monsanto  | OWN    |
| 63-12   | pH (MP & TGAI)  | +          | 152385          | 07/30/1984  | R.D. 542                 | Monsanto  | OWN    |
| 63-13   | Stability (TGAI)                                      | +          | 152385          | 07/30/1984  | R.D. 542                 | Monsanto  | OWN    |
| 63-14   | Oxidizing or Reducing Action (MP)                     | +          | 161333          | 06/30/1986  | R.D. 690                 | Monsanto  | OWN    |
| 63-15   | Flammability (MP)                                     | +          | 161333          | 06/30/1986  | R.D. 690                 | Monsanto  | OWN    |

Printed: 02/23/2001

Data Matrix: Glyphosate

EPA Reg. Nos.  
524-NEW

| PRODUCT  |  | NO.   | STUDY NAME                     | DATA REQ'D | EPA MRID NUMBER | SUBMIT DATE | MONSANTO DOCUMENT NUMBER | SUBMITTER | STATUS |
|--|--|-------|--------------------------------|------------|-----------------|-------------|--------------------------|-----------|--------|
| CHEMISTRY40 CFR<br>158.150-158.190<br>(830 Series) |  | 63-16 | Explodability (MP)             | +          | 161333          | 06/30/1986  | R.D. 690                 | Monsanto  | OWN    |
|  |  | 63-17 | Storage Stability (MP)         | +          | 152385          | 07/30/1984  | R.D. 542                 | Monsanto  | OWN    |
|  |  | 63-18 | Viscosity (MP)                 | NR         |                 |             |                          |           |        |
|  |  | 63-19 | Miscibility (MP)               | NR         |                 |             |                          |           |        |
|  |  | 63-20 | Corrosion Characteristics (MP) | +          | 161333          | 06/30/1986  | R.D. 690                 | Monsanto  | OWN    |
|  |  | 63-21 | Dielectric Breakdown Voltage   |            |                 |             |                          |           |        |
|  |  | 64-1  | Submittal of Samples (PAI)     | +          |                 |             |                          | Monsanto  | OWN    |

Printed: 05/11/2001

TOXICOLOGY 40  
CFR 158.340  
(870 Series)

Data Matrix: Glyphosate

EPA Reg. Nos.  
524-NEW

| NO.                       | STUDY NAME                              | DATA REQ'D | EPA MRID NUMBER | SUBMIT DATE | MONSANTO DOCUMENT NUMBER | SUBMITTER | STATUS |
|---------------------------|---|------------|-----------------|-------------|--------------------------|-----------|--------|
| <b>ACUTE TESTING</b>      |   |            |                 |             |                          |           |        |
| 81-1                      | Oral LD50 - Rat (MP & TGA)              | +          | 41400601        | 02/06/1990  | R.D. 976                 | Monsanto  | OWN    |
| 81-2                      | Dermal LD50 (MP & TGA)                  | +          | 41400602        | 02/06/1990  | R.D. 976                 | Monsanto  | OWN    |
| 81-3                      | Inhalation LC50 - Rat (MP & TGA)        | NR         |                 |             |                          |           |        |
| 81-4                      | Primary Eye Irritation - Rabbit (MP)    | +          | 41400603        | 02/06/1990  | R.D. 976                 | Monsanto  | OWN    |
| 81-5                      | Primary Dermal Irritation (MP)          | +          | 41400604        | 02/06/1990  | R.D. 976                 | Monsanto  | OWN    |
| 81-6                      | Dermal Sensitization (MP)               | (NR)       | 137138          | 12/20/1983  | R.D. 515                 | Monsanto  | OWN    |
| 81-7                      | Acute Delayed Neurotoxicity - Hen (TGA) | NR         |                 |             |                          |           |        |
|                           | Acute Delayed Neurotoxicity - Hen (EP)  | (NR)       | 54494           | 12/22/1976  | R.D. 108                 | Monsanto  | OWN    |
| <b>SUBCHRONIC TESTING</b> |   |            |                 |             |                          |           |        |
| 82-1                      | 90-Day Feeding - Rodent (TGA)           | +          | 40559401        | 03/16/1988  | R.D. 860                 | Monsanto  | OWN    |
|                           | 90-Day Feeding - Nonrodent (TGA)        | +          | 40557           | 01/15/1973  | R.D. 40                  | Monsanto  | OWN    |
| 82-2                      | 21-Day Dermal (TGA)                     | +          | 98460           | 03/22/1982  | R.D. 413                 | Monsanto  | OWN    |
|                           | 21-Day Dermal (EP)                      | +          | 67045           | 01/15/1973  | R.D. 40                  | Monsanto  | OWN    |
|                           |   |            | 67046           | 01/15/1973  | R.D. 40                  | Monsanto  | OWN    |
|                           |   |            | 108128          | 07/12/1974  | R.D. 51                  | Monsanto  | OWN    |
| 82-3                      | 90-Day Dermal (TGA)                     | NR         |                 |             |                          |           |        |
| 82-4                      | 90-Day Inhalation - Rat (TGA)           | NR         |                 |             |                          |           |        |
| 82-5                      | 90-Day Neurotoxicity - Hen (TGA)        | NR         |                 |             |                          |           |        |
|                           | 90-Day Neurotoxicity - Mammal (TGA)     | NR         |                 |             |                          |           |        |
| <b>CHRONIC TESTING</b>    |   |            |                 |             |                          |           |        |
| 83-1                      | Chronic Feeding - Rodent (TGA)          | +          | 41643801        | 09/26/1990  | R.D. 1014                | Monsanto  | OWN    |
|                           | Chronic Feeding - Nonrodent (TGA)       | +          | 41728701        | 12/17/1990  | R.D. 1014                | Monsanto  | OWN    |
|                           |   |            | 153374          | 10/17/1985  | R.D. 636                 | Monsanto  | OWN    |
|                           |   |            | 162912          | 08/11/1986  | R.D. 698                 | Monsanto  | OWN    |
| 83-2                      | Oncogenicity Study - Rat (TGA)          | +          | 41643801        | 09/26/1990  | R.D. 1014                | Monsanto  | OWN    |
|                           |   |            | 41728701        | 12/17/1990  | R.D. 1014                | Monsanto  | OWN    |
|                           | Oncogenicity Study - Mouse (TGA)        | +          | 130406          | 07/29/1983  | R.D. 480                 | Monsanto  | OWN    |
|                           |   |            | 150564          | 10/07/1985  | R.D. 635                 | Monsanto  | OWN    |
|                           |   |            | 153376          | 10/28/1985  | R.D. 643                 | Monsanto  | OWN    |

NR: See Appendix E for Explanation  
of Non-Required Data



TOXICOLOGY 40  
CFR 158.340  
(870 Series)

| NO.                          | STUDY NAME                             | DATA REQ'D | EPA MRID NUMBER | SUBMIT DATE | MONSANTO DOCUMENT NUMBER | SUBMITTER | STATUS |
|------------------------------|--|------------|-----------------|-------------|--------------------------|-----------|--------|
| 83-3                         | Teratology - Rat (TGA)                 | +          | 46362           | 05/13/1980  | R.D. 300                 | Monsanto  | OWN    |
|                              | Teratology - Rabbit (TGA)              | +          | 46363           | 05/13/1980  | R.D. 300                 | Monsanto  | OWN    |
| 83-4                         | Reproduction, 2-Generation (TGA)       | +          | 41621501        | 08/30/1990  | R.D. 1013                | Monsanto  | OWN    |
| <b>MUTAGENICITY TESTING:</b> |  |            |                 |             |                          |           |        |
| 84-2                         | Gene Mutation (TGA)                    | +          | 78619           | 04/20/1979  | R.D. 236                 | Monsanto  | OWN    |
|                              |  |            | 132681          | 11/04/1983  | R.D. 504                 | Monsanto  | OWN    |
|                              |  |            | 137640          | 02/09/1984  | R.D. 504                 | Monsanto  | OWN    |
|                              |  |            | 78620           | 04/20/1979  | R.D. 236                 | Monsanto  | OWN    |
|                              | Chromosomal Aberration (TGA)           | +          | 46364           | 05/13/1980  | R.D. 300                 | Monsanto  | OWN    |
|                              |  |            | 132682          | 11/04/1983  | R.D. 504                 | Monsanto  | OWN    |
|                              |  |            | 132683          | 11/04/1983  | R.D. 504                 | Monsanto  | OWN    |
|                              |  |            | 132684          | 11/04/1983  | R.D. 504                 | Monsanto  | OWN    |
|                              |  |            | 132685          | 11/04/1983  | R.D. 504                 | Monsanto  | OWN    |
| 84-4                         | Other Mechanisms of Mutagenicity (TGA) | +          | 132686          | 11/04/1983  | R.D. 504                 | Monsanto  | OWN    |
|                              |  |            | 132680          | 11/04/1983  | R.D. 504                 | Monsanto  | OWN    |
| <b>SPECIAL TESTING:</b>      |  |            |                 |             |                          |           |        |
| 85-1                         | General Metabolism (PAIRA)             | +          | 40767101        | 08/11/1988  | R.D. 877                 | Monsanto  | OWN    |
|                              |  |            | 40767102        | 08/11/1988  | R.D. 877                 | Monsanto  | OWN    |
| 85-2                         | Dermal Penetration                     | (NR)       | 137139          | 12/20/1983  | R.D. 515                 | Monsanto  | OWN    |
|                              |  |            | 137140          | 12/20/1983  | R.D. 515                 | Monsanto  | OWN    |
| 86-1                         | Domestic Animal Safety                 | NR         |                 |             |                          |           |        |

WILDLIFE &  
AQUATICS  
40 CFR 158.490  
(850 Series)

| NO.                                 | STUDY NAME                                 | DATA REQ'D | EPA MRID NUMBER | SUBMIT DATE | MONSANTO DOCUMENT NUMBER | SUBMITTER | STATUS |
|-------------------------------------|--|------------|-----------------|-------------|--------------------------|-----------|--------|
| <b>AVIAN AND MAMMALIAN TESTING:</b> |  |            |                 |             |                          |           |        |
| 71-1                                | Avian Oral LD50 (TGAI)                     | +          | 108204          | 03/01/1978  |                          | Monsanto  | OWN    |
| 71-2                                | Avian Dietary LC50 (TGAI)                  | +          | 108107          | 07/12/1974  | R.D. 51                  | Monsanto  | OWN    |
|                                     | Avian Dietary LC50 (EP)                    |            | 44465701        | 01/19/1998  | R.D. 1399                | Monsanto  | OWN    |
|                                     |  |            | 44465702        | 01/19/1998  | R.D. 1399                | Monsanto  | OWN    |
| 71-3                                | Wild Mammal Toxicity (TGAI)                | NR         |                 |             |                          |           |        |
| 71-4                                | Avian Reproduction (TGAI)                  | +          | 108207          | 11/13/1978  | R.D. 211                 | Monsanto  | OWN    |
|                                     |  |            | 111953          | 11/13/1978  | R.D. 211                 | Monsanto  | OWN    |
| 71-5                                | Simulated / Actual Field Testing -         | NR         |                 |             |                          |           |        |
| <b>AQUATIC ORGANISM TESTING:</b>    |  |            |                 |             |                          |           |        |
| 72-1                                | Freshwater Fish LC50 (TGAI)                | +          | 108112          | 07/12/1974  | R.D. 51                  | Monsanto  | OWN    |
|                                     |  |            | 136339          | 11/28/1978  | R.D. 215                 | Monsanto  | OWN    |
|                                     | Freshwater Fish LC50 (MUP)                 |            | 44715409        | 12/10/1998  | R.D. 1406                | Monsanto  | OWN    |
| 72-1                                | Freshwater Fish LC50 (TEP)                 | +          | 108112          | 07/12/1974  | R.D. 51                  | Monsanto  | OWN    |
|                                     |  |            | 70894           | 03/30/1981  | R.D. 350                 | Monsanto  | OWN    |
|                                     |  |            | 70895           | 03/30/1981  | R.D. 350                 | Monsanto  | OWN    |
|                                     |  |            | 70896           | 03/30/1981  | R.D. 350                 | Monsanto  | OWN    |
|                                     |  |            | 70897           | 03/30/1981  | R.D. 350                 | Monsanto  | OWN    |
|                                     |  |            | 40579201        | 03/25/1988  | R.D. 862                 | Monsanto  | OWN    |
|                                     |  |            | 40579202        | 03/25/1988  | R.D. 862                 | Monsanto  | OWN    |
|                                     |  |            | 40579203        | 03/25/1988  | R.D. 862                 | Monsanto  | OWN    |
| 72-2                                | Acute LC50 Freshwater Invertebrates (TGAI) | +          | 136338          | 11/28/1978  | R.D. 215                 | Monsanto  | OWN    |
| 72-2                                | Acute LC50 Freshwater Invertebrates (TEP)  | +          | 108109          | 07/12/1974  | R.D. 51                  | Monsanto  | OWN    |
|                                     |  |            | 70893           | 03/30/1981  | R.D. 350                 | Monsanto  | OWN    |
|                                     |  |            | 44715410        | 12/10/1998  | R.D. 1406                | Monsanto  | OWN    |
| 72-3                                | Acute LC50 Estuarine and Marine            | +          | 108110          | 07/12/1974  | R.D. 51                  | Monsanto  | OWN    |
|                                     |  |            | 108111          | 07/12/1974  | R.D. 51                  | Monsanto  | OWN    |
|                                     | Organisms (TGAI)                           |            | 136339          | 11/28/1978  | R.D. 215                 | Monsanto  | OWN    |
| 73-4                                | Fish Early Life Stage and                  | +          | 124761          | 12/20/1982  | R.D. 453                 | Monsanto  | OWN    |

00430F0072

Printed: 05/11/2001

**Data Matrix: Glyphosate**

EPA Reg. Nos.  
524-NEW

WILDLIFE &  
AQUATICS  
40 CFR 158.490  
(850 Series)

| NO.  | STUDY NAME                              | DATA REQ'D | EPA MRID NUMBER | SUBMIT DATE | MONSANTO DOCUMENT NUMBER | SUBMITTER | STATUS |
|------|---|------------|-----------------|-------------|--------------------------|-----------|--------|
|      | Aquatic Invertebrate Life-Cycle (TGAI)  |            | 124762          | 12/20/1982  | R.D. 453                 | Monsanto  | OWN    |
| 72-5 | Fish - Life-Cycle (TGAI)                | +          | 124763          | 12/20/1982  | R.D. 453                 | Monsanto  | OWN    |
| 72-6 | Aquatic Organism Accumulation (TGAI)    | +          | 108172          | 12/22/1978  | R.D. 220                 | Monsanto  | OWN    |
|      |   |            | 111942          | 07/12/1974  | R.D. 51                  | Monsanto  | OWN    |
|      |   |            | 94971           | 02/26/1982  | R.D. 407                 | Monsanto  | OWN    |
|      |   |            | 108173          | 12/22/1978  | R.D. 220                 | Monsanto  | OWN    |
|      |   |            | 41228301        | 09/05/1989  | R.D. 955                 | Monsanto  | OWN    |
| 72-7 | Simulated or Actual Field Testing (TEP) | NR         | 41228302        | 09/05/1989  | R.D. 955                 | Monsanto  | OWN    |



Printed: 05/11/2001

Data Matrix: Glyphosate

EPA Reg. Nos.  
524-NEW

PLANT  
PROTECTION 40  
CFR 158.540  
(850 Series)

| NO. | STUDY NAME | DATA REQ'D | EPA MRID NUMBER | SUBMIT DATE | MONSANTO DOCUMENT NUMBER | SUBMITTER | STATUS |
|-----|------------|------------|-----------------|-------------|--------------------------|-----------|--------|
|-----|------------|------------|-----------------|-------------|--------------------------|-----------|--------|

TARGET AREA PHYTOTOXICITY

121-1 Target Area Phytotoxicity (TEP)

NR

NON-TARGET AREA PHYTOTOXICITY

TIER I:

122-1 Seed Germination/Seedling Emergence (TGAI)

+

(1)

122-1 Vegetative Vigor (TGAI)

(2)

122-2 Aquatic Plant Growth (TGAI)

TIER II:

123-1 Seed Germination/Seedling Emergence (TGAI)

NR

123-1 Vegetative Vigor (TGAI)

+

123-2 Aquatic Plant Growth (TGAI)

+

TIER III:

124-1 Terrestrial Field (TEP)

NR

124-2 Aquatic Field (TEP)

NR

|          |            |           |          |     |
|----------|------------|-----------|----------|-----|
| 43088701 | 01/17/1994 | R.D. 1219 | Monsanto | OWN |
| 40236901 | 06/12/1987 | R.D. 779  | Monsanto | OWN |
| 40236902 | 06/12/1987 | R.D. 778  | Monsanto | OWN |
| 40236903 | 06/12/1987 | R.D. 781  | Monsanto | OWN |
| 40236904 | 06/12/1987 | R.D. 782  | Monsanto | OWN |
| 40236905 | 06/12/1987 | R.D. 783  | Monsanto | OWN |

- (1) Tier I Vegetative Vigor studies were combined with Tier II Vegetative Vigor studies.  
(2) Tier I Aquatic Plant Growth studies were combined with Tier II Aquatic Plant Growth studies.

NR: See Appendix E for Explanation  
of Non-Required Data

Contains Trade Secret or Otherwise Confidential Information of Monsanto Company

004500072

Printed: 05/11/2001

Data Matrix: Glyphosate

EPA Reg. Nos.  
524-NEW

NONTARGET  
INSECT 40  
CFR 158.590  
(850 Series)

| NO. | STUDY NAME | DATA REQ'D | EPA MRID NUMBER | SUBMIT DATE | MONSANTO DOCUMENT NUMBER | SUBMITTER | STATUS |
|-----|------------|------------|-----------------|-------------|--------------------------|-----------|--------|
|-----|------------|------------|-----------------|-------------|--------------------------|-----------|--------|

POLLINATORS:

|       |  |     |          |            |           |          |     |
|-------|--|-----|----------|------------|-----------|----------|-----|
| 141-1 | Honeybee Acute Contact Toxicity (TGA)            | +   | 108108   | 07/12/1974 | R.D. 51   | Monsanto | OWN |
|       | Honeybee Acute Contact Toxicity (EP)             |     | 44465703 | 01/19/1998 | R.D. 1399 | Monsanto | OWN |
| 141-2 | Honeybee - Toxicity of Residues on Foliage (TEP) | NR  |          |            |           |          |     |
| 141-4 | Honeybee Subacute Feeding Study (TEP)            | (1) |          |            |           |          |     |
| 141-5 | Field Testing for Pollinators (TEP)              | NR  |          |            |           |          |     |

AQUATIC INSECTS

|       |   |     |  |  |  |  |  |
|-------|---|-----|--|--|--|--|--|
| 142-1 | Acute Toxicity to Aquatic Insects                     | (2) |  |  |  |  |  |
| 142-2 | Aquatic Insect Life-Cycle Study                       | (2) |  |  |  |  |  |
| 142-3 | Simulated or Actual Field Testing for Aquatic Insects | (2) |  |  |  |  |  |

PREDATORS AND PARASITES

|                  |  |     |  |  |  |  |  |
|------------------|--|-----|--|--|--|--|--|
| 143-1 thru 143-3 |  | (2) |  |  |  |  |  |
|------------------|--|-----|--|--|--|--|--|

- (1) Reserved pending development of test methodology.  
(2) Reserved pending further evaluation to determine what and when data should be required, and to develop appropriate test methods.

00460F0072

Printed: 05/11/2001

Data Matrix: Glyphosate

EPA Reg. Nos.  
524-NEW

REENTRY  
PROTECTION 40  
CFR 158.390  
(875 Series)

| NO. | STUDY NAME | DATA<br>REQ'D | EPA MRID<br>NUMBER | SUBMIT<br>DATE | MONSANTO<br>DOCUMENT<br>NUMBER | SUBMITTER | STATUS |
|-----|------------|---------------|--------------------|----------------|--------------------------------|-----------|--------|
|-----|------------|---------------|--------------------|----------------|--------------------------------|-----------|--------|

REENTRY PROTECTION:

132-1 Foliar Dissipation (TEP)  
132-1 Soil Dissipation (TEP)  
133-3 Dermal Exposure (TEP)  
133-4 Inhalation Exposure (TEP)

NR  
NR  
NR  
NR



ENVIRONMENTAL  
FATE  
40 CFR 158.290  
(835 Series)

| NO.                                 | STUDY NAME  | DATA<br>REQ'D | EPA MRID<br>NUMBER   | SUBMIT<br>DATE   | MONSANTO<br>DOCUMENT<br>NUMBER                                      | SUBMITTER  | STATUS                                 |
|-------------------------------------|---|---------------|--|--|---|--|--|
| <b>DEGRADATION STUDIES - LAB:</b>   |   |               |  |  |   |  |  |
| 161-1                               | Hydrolysis (TGAI or PAIRA)<br>Hydrolysis (MUP)        | +             | 108192<br>44715408   | 06/05/1978<br>12/10/1998   | R.D. 181<br>R.D. 1406   | Monsanto<br>Monsanto   | OWN<br>OWN                             |
| <b>PHOTODEGRADATION:</b>            |   |               |  |  |   |  |  |
| 161-2                               | In Water (TGAI or PAIRA)                              | +             | 41689101   | 11/01/1990   | R.D. 1020   | Monsanto   | OWN                                    |
| 161-3                               | On Soil (TGAI or PAIRA)                               | +             | 41355101   | 12/18/1989   | R.D. 972  | Monsanto   | OWN                                    |
| 161-4                               | In Air (TGAI or PAIRA)                                | NR            |  |  |   |  |  |
| <b>METABOLISM STUDIES - LAB:</b>    |   |               |  |  |   |  |  |
| 162-1                               | Aerobic Soil (TGAI or PAIRA)                          | +             | 41742901<br>43272501                                       | 01/03/1991<br>06/24/1992   | R.D. 1031<br>R.D. 1031 Supl   | Monsanto<br>Monsanto   | OWN<br>OWN                             |
| 162-2                               | Anaerobic Soil (TGAI or PAIRA)                        |               |  |  |   |  |  |
| 162-3                               | Anaerobic Aquatic (TGAI or PAIRA)                     | +             | 41723701<br>42372502                                       | 12/07/1990<br>06/24/1992   | R.D. 1029<br>R.D. 1029 Supl   | Monsanto<br>Monsanto   | OWN<br>OWN                             |
| 162-4                               | Aerobic Aquatic (TGAI or PAIRA)                       | +             | 41723601<br>42372503                                       | 12/07/1990<br>06/24/1992   | R.D. 1030<br>R.D. 1030 Supl   | Monsanto<br>Monsanto   | OWN<br>OWN                             |
| <b>MOBILITY STUDIES:</b>            |   |               |  |  |   |  |  |
| 163-1                               | Leaching and Adsorption/Desorption<br>(TGAI or PAIRA) | +             | 39938<br>108192<br>64703                                   | 07/12/1974<br>06/05/1978<br>12/16/1980   | R.D. 51<br>R.D. 181<br>R.D. 335                                     | Monsanto<br>Monsanto<br>Monsanto                                     | OWN<br>OWN<br>OWN                      |
| 163-2                               | Volatility - Lab (TEP)                                | NR            |  |  |   |  |  |
| 163-3                               | Volatility - Field (TEP)                              | NR            |  |  |   |  |  |
| <b>DISSIPATION STUDIES - FIELD:</b> |   |               |  |  |   |  |  |
| 164-1                               | Soil (TEP)  | +             | 39939<br>39940<br>162910<br>162922<br>41096103<br>42765001 | 07/12/1974<br>07/12/1974<br>08/06/1986<br>08/07/1986<br>05/10/1989<br>05/03/1993 | R.D. 51<br>R.D. 51<br>R.D. 696<br>R.D. 697<br>R.D. 924<br>R.D. 1165 | Monsanto<br>Monsanto<br>Monsanto<br>Monsanto<br>Monsanto<br>Monsanto | OWN<br>OWN<br>OWN<br>OWN<br>OWN<br>OWN |
| 164-2                               | Aquatic Sediment (TEP)                                | +             | 39942  | 07/12/1974   | R.D. 51   | Monsanto   | OWN                                    |

ENVIRONMENTAL  
FATE  
40 CFR 158.290  
(835 Series)

| NO.                          | STUDY NAME                                  | DATA<br>REQ'D | EPA MRID<br>NUMBER   | SUBMIT<br>DATE   | MONSANTO<br>DOCUMENT<br>NUMBER  | SUBMITTER  | STATUS   |
|------------------------------|---|---------------|--|--|---|--|--|
|                              | 164-3 Forestry (TEP)                        | +             | 40881601<br>42383201<br>84657<br>93922<br>162923<br>134008<br>162923<br>41552801 | 11/09/1988<br>06/29/1992<br>09/29/1981<br>02/01/1982<br>06/17/1983<br>11/18/1983<br>08/07/1986<br>06/02/1990 | R.D. 898<br>R.D. 898 Supp<br>R.D. 379<br>R.D. 379<br>R.D. 379<br>R.D. 506<br>R.D. 697<br>R.D. 993 | Monsanto<br>Monsanto<br>Monsanto<br>Monsanto<br>Monsanto<br>Monsanto<br>Monsanto<br>Monsanto | OWN<br>OWN<br>OWN<br>OWN<br>OWN<br>OWN<br>OWN<br>OWN |
|                              | 164-4 Combination and Tank Mixes            | NR            |  |  |   |  |  |
|                              | 164-5 Soil, Long-Term (TEP)                 | NR            |  |  |   |  |  |
| <b>ACCUMULATION STUDIES:</b> |   |               |  |  |   |  |  |
|                              | 165-1 Rotational Crops - Confined (PAIRA)   | +             | 41543201<br>41543202<br>42372504   | 06/29/1990<br>06/29/1990<br>06/24/1992   | R.D. 991<br>R.D. 991<br>R.D. 991, Supl  | Monsanto<br>Monsanto<br>Monsanto   | OWN<br>OWN<br>OWN                                    |
|                              | 165-2 Rotational Crops - Field (TEP)        | +             | 108159   | 10/14/1977   | R.D. 141  | Monsanto   | OWN  |
|                              | 165-3 Irrigated Crops (TEP)                 | +             | 40541305   | 02/23/1988   | R.D. 856  | Monsanto   | OWN  |
|                              | 165-4 In Fish (TGA1 or PAIRA)               | +             | 108173   | 12/22/1978   | R.D. 220  | Monsanto   | OWN  |
|                              | 165-5 In Aquatic Non-target Organisms (TEP) | +             |  |  |   | Monsanto   | OWN  |

RESIDUE  
CHEMISTRY 40  
CFR 158.240  
(860 Series)

| NO. | STUDY NAME | DATA<br>REQ'D | EPA MRID<br>NUMBER | SUBMIT<br>DATE | MONSANTO<br>DOCUMENT<br>NUMBER | SUBMITTER | STATUS |
|-----|------------|---------------|--------------------|----------------|--------------------------------|-----------|--------|
|-----|------------|---------------|--------------------|----------------|--------------------------------|-----------|--------|

**RESIDUE CHEMISTRY**

|       |                          |     |          |            |          |          |     |
|-------|--------------------------|-----|----------|------------|----------|----------|-----|
| 171-2 | Chemical Identity (TGAI) | +   | 41228201 | 08/30/1989 | R.D. 953 | Monsanto | OWN |
| 171-3 | Directions for Use       | (1) |          |            |          |          |     |

**NATURE OF THE RESIDUE:**

|          |   |   |            |            |          |          |     |
|----------|---|---|------------|------------|----------|----------|-----|
| 171-4(a) | Plants (PAIRA)                          | + | Appendix A |            |          |          |     |
| 171-4(b) | Livestock (PAIRA and Plant Metabolites) | + | 40541301   | 02/23/1988 | R.D. 856 | Monsanto | OWN |
|          |   | + | 40541302   | 02/23/1988 | R.D. 856 | Monsanto | OWN |

**RESIDUE METHODOLOGY:**

Residue Analytical Method - Plants (TGAI and

171-4(c) Metabolites)

|          |  |   |          |            |          |          |     |
|----------|--|---|----------|------------|----------|----------|-----|
|          |  | + | 108231   | 07/24/1979 | R.D. 251 | Monsanto | OWN |
|          |  |   | 164729   | 10/20/1986 | R.D. 707 | Monsanto | OWN |
|          |  |   | 40502601 | 01/29/1988 | R.D. 849 | Monsanto | OWN |
| 171-4(d) | Residue Analytical Method - Animals (TGAI and Metabolites) | + | 40541303 | 02/23/1988 | R.D. 856 | Monsanto | OWN |

Residue Analytical Method - Water (TGAI and

171-4 Metabolites)

|          |   |   |          |            |           |          |     |
|----------|---|---|----------|------------|-----------|----------|-----|
|          |   | + | 159419   | 05/19/1986 | R.D. 677  | Monsanto | OWN |
|          |   |   | 40502605 | 01/29/1988 | R.D. 848  | Monsanto | OWN |
|          |   | + | 40502605 | 01/29/1988 | R.D. 848  | Monsanto | OWN |
|          |   | + | 40532004 | 02/23/1988 | R.D. 855  | Monsanto | OWN |
| 171-4(e) | Storage Stability (PAI)(In Plants, Animal Products, a | + | 41472002 | 04/02/1990 | R.D. 977  | Monsanto | OWN |
|          |   | + | 41573501 | 07/25/1990 | R.D. 1005 | Monsanto | OWN |
|          |   | + | 41940701 | 07/12/1991 | R.D. 1051 | Monsanto | OWN |

**MAGNITUDE OF THE RESIDUE:**

|          |  |   |            |            |          |          |     |
|----------|--|---|------------|------------|----------|----------|-----|
| 171-4(k) | Crop Field Trials (TEP)                            | + | Appendix B |            |          |          |     |
| 171-4(l) | Processed Food/Feed (EP)                           | + | Appendix B |            |          |          |     |
| 171-4(j) | Meat/Milk/Poultry/Eggs (TGAI or Plant Metabolites) | + | 108115     | 07/12/1974 | R.D. 51  | Monsanto | OWN |
|          |  |   | 40532001   | 02/23/1988 | R.D. 855 | Monsanto | OWN |
|          |  |   | 40532002   | 02/23/1988 | R.D. 855 | Monsanto | OWN |



Printed: 05/11/2001

**Data Matrix: Glyphosate**

EPA Reg. Nos.  
524-NEW

RESIDUE  
CHEMISTRY 40  
CFR 158.240  
(860 Series)

| NO.      | STUDY NAME  | DATA REQ'D | EPA MRID NUMBER | SUBMIT DATE | MONSANTO DOCUMENT NUMBER | SUBMITTER | STATUS |
|----------|---|------------|-----------------|-------------|--------------------------|-----------|--------|
| 171-4(f) | Potable Water (EP)  | +          | 40532003        | 02/23/1988  | R.D. 855                 | Monsanto  | OWN    |
| 171-4(g) | Fish (EP)   | +          | 40532004        | 02/23/1988  | R.D. 855                 | Monsanto  | OWN    |
| 171-4(h) | Irrigated Crops (EP)  | +          | Appendix C      |             |                          |           |        |
| 171-4(i) | Food Handling (EP)  | NR         | Appendix D      |             |                          |           |        |
| 171-5    | Reduction of Residue  | NR         | Appendix B      |             |                          |           |        |
| 171-6    | Proposed Tolerances   | (2)        |                 |             |                          |           |        |
| 171-7    | Reasonable Grounds in Support of the Petition   | (3)        |                 |             |                          |           |        |
| (1)      | Directions for Use are contained in Product Labels or Section B of Petitions          |            |                 |             |                          |           |        |
| (2)      | Proposed Tolerances are contained in Section F of Petitions                           |            |                 |             |                          |           |        |
| (3)      | Reasonable Grounds in Support of the Petition are contained in Section G of Petitions |            |                 |             |                          |           |        |

| RESIDUE<br>CHEMISTRY 40<br>CFR 158.240<br>(860 Series) | NO. | STUDY NAME                                | DATA<br>REQ'D | EPA MRID<br>NUMBER | SUBMIT<br>DATE | MONSANTO<br>DOCUMENT<br>NUMBER | SUBMITTER | STATUS |
|--|-----|---|---------------|--------------------|----------------|--------------------------------|-----------|--------|
| RESIDUE<br>CHEMISTRY<br>APPENDIX A                     |     | NATURE OF THE RESIDUE: PLANTS<br>171-4(a) |               |                    |                |                                |           |        |
|  |     | Com                                       |               | 137903             | 07/12/1974     | R.D. 51                        | Monsanto  | OWN    |
|  |     | Roundup Ready® Corn                       |               | 47778              | 07/12/1974     | R.D. 51                        | Monsanto  | OWN    |
|  |     |   |               | 43712701           | 06/29/1995     | R.D. 1306                      | Monsanto  | OWN    |
|  |     | Wheat                                     |               | 137903             | 07/12/1974     | R.D. 51                        | Monsanto  | OWN    |
|  |     |   |               | 47778              | 07/12/1974     | R.D. 51                        | Monsanto  | OWN    |
|  |     | Soybeans                                  |               | 137903             | 07/12/1974     | R.D. 51                        | Monsanto  | OWN    |
|  |     |   |               | 47778              | 07/12/1974     | R.D. 51                        | Monsanto  | OWN    |
|  |     | Roundup Ready® Soybeans                   |               | 43330601           | 07/22/1994     | R.D. 1260                      | Monsanto  | OWN    |
|  |     | Cotton                                    |               | 137903             | 07/12/1974     | R.D. 51                        | Monsanto  | OWN    |
|  |     |   |               | 47778              | 07/12/1974     | R.D. 51                        | Monsanto  | OWN    |
|  |     | Roundup Ready® Cotton                     |               | 44279301           | 05/19/1997     | R.D. 1371                      | Monsanto  | OWN    |
|  |     | Grapes                                    |               | 38981              | 10/04/1974     |                                | Monsanto  | OWN    |
|  |     | Citrus                                    |               | 41165              | 01/19/1976     |                                | Monsanto  | OWN    |
|  |     | Coffee                                    |               | 51983              | 06/01/1976     |                                | Monsanto  | OWN    |
|  |     | Sugarcane                                 |               | 61558              | 03/01/1976     |                                | Monsanto  | OWN    |
|  |     | Pome Fruit                                |               | 108129             | 09/01/1976     |                                | Monsanto  | OWN    |
|  |     | Forage Grass and Legumes                  |               | 108147             | 04/28/1978     |                                | Monsanto  | OWN    |

Printed: 05/11/2001

Data Matrix: Glyphosate

EPA Reg. Nos.  
524-NEW

RESIDUE  
CHEMISTRY 40  
CFR 158.240  
(860 Series)

| NO. | STUDY NAME            | DATA<br>REQ'D | EPA MRID<br>NUMBER | SUBMIT<br>DATE | MONSANTO<br>DOCUMENT<br>NUMBER | SUBMITTER | STATUS |
|-----|-----------------------|---------------|--------------------|----------------|--------------------------------|-----------|--------|
|     | Sugar Beets           |               | 108152             | 12/09/1977     |                                | Monsanto  | OWN    |
|     | Grapes                |               | 38771              | 10/04/1974     | R.D. 53                        | Monsanto  | OWN    |
|     | Nut Crops             |               | 111945             | 11/30/1976     | R.D. 110                       | Monsanto  | OWN    |
|     | Alfalfa               |               | 108133             | 12/31/1976     |                                | Monsanto  | OWN    |
|     | Vegetables            |               | 108159             | 10/15/1977     |                                | Monsanto  | OWN    |
|     | Roundup Ready® Canola |               | 44541201           | 04/03/1998     | R.D. 1408                      | Monsanto  | OWN    |



| RESIDUE<br>CHEMISTRY 40<br>CFR 158.240<br>(860 Series) | NO. | STUDY NAME  | DATA<br>REQ'D | EPA MRID<br>NUMBER | SUBMIT<br>DATE | MONSANTO<br>DOCUMENT<br>NUMBER | SUBMITTER | STATUS |
|--|-----|---|---------------|--------------------|----------------|--------------------------------|-----------|--------|
| RESIDUE<br>CHEMISTRY<br>APPENDIX B                     |     |   |               |                    |                |                                |           |        |
|  |     | MAGNITUDE OF THE RESIDUE: CROPS, IRRIGATED CROPS, AND PROCESSED COMMODITIES |               |                    |                |                                |           |        |
|  |     | 171-4(k,l) ROOT AND TUBER VEGETABLES GROUP:                                 |               |                    |                |                                |           |        |
|  |     | Beets, garden   |               | 108159             | 10/14/1977     | R.D. 141                       | Monsanto  | OWN    |
|  |     | Carrots   |               | 39381              | 09/25/1975     |                                | Monsanto  | OWN    |
|  |     | Radishes  |               | 108159             | 10/14/1977     | R.D. 141                       | Monsanto  | OWN    |
|  |     | Potatoes  |               | 108151             | 12/09/1977     | R.D. 148                       | Monsanto  | OWN    |
|  |     |   |               | 40785302           | 07/29/1988     | R.D. 878                       | Monsanto  | OWN    |
|  |     |   |               | 41947001           | 07/15/1991     | R.D. 1053                      | Monsanto  | OWN    |
|  |     |   |               | 41947002           | 07/15/1991     | R.D. 1053                      | Monsanto  | OWN    |
|  |     |   |               | 43906101           | 01/22/1996     | R.D. 1338                      | Monsanto  | OWN    |
|  |     |   |               | 40785302           | 07/29/1988     | R.D. 878                       | Monsanto  | OWN    |
|  |     |   |               | 43906101           | 01/22/1996     | R.D. 1338                      | Monsanto  | OWN    |
|  |     | Processed Potato Commodities  |               |                    |                |                                |           |        |
|  |     | Sugar Beets   |               | 108159             | 10/14/1977     | R.D. 141                       | Monsanto  | OWN    |
|  |     |   |               | 108151             | 12/09/1977     | R.D. 148                       | Monsanto  | OWN    |
|  |     |   |               | 39381              | 09/25/1975     |                                | Monsanto  | OWN    |
|  |     |   |               | 40785304           | 07/29/1988     | R.D. 878                       | Monsanto  | OWN    |
|  |     |   |               | 43315703           | 07/19/1994     | R.D. 1236                      | Monsanto  | OWN    |
|  |     |   |               | 44331601           | 07/11/1997     | R.D. 1384                      | Monsanto  | OWN    |
|  |     | Roundup Ready® Sugar Beets  |               | 44331602           | 07/11/1997     | R.D. 1384                      | Monsanto  | OWN    |
|  |     |   |               | 44331603           | 07/11/1997     | R.D. 1384                      | Monsanto  | OWN    |
|  |     | Sweet Potatoes  |               |                    |                |                                |           |        |
|  |     | Turnip  |               | 40835201           | 10/03/1988     | 3204                           | IR-4      | PER    |

RESIDUE  
CHEMISTRY 40  
CFR 158.240  
(860 Series)

| NO.   | STUDY NAME                 | DATA REQ'D | EPA MRID NUMBER | SUBMIT DATE | MONSANTO DOCUMENT NUMBER | SUBMITTER | STATUS |
|---|----------------------------|------------|-----------------|-------------|--------------------------|-----------|--------|
| 171-4(k,l) LEAVES OF ROOT AND TUBER VEGETABLES GROUP:           |                            |            |                 |             |                          |           |        |
|   | Sugar Beet Tops            |            | 39381           | 09/25/1975  |                          | Monsanto  | OWN    |
|   |                            |            | 108159          | 10/14/1977  | R.D. 141                 | Monsanto  | OWN    |
|   | Roundup Ready® Sugar Beets |            | 44331601        | 07/11/1997  | R.D. 1384                | Monsanto  | OWN    |
|   | Carrot Tops                |            | 108159          | 10/14/1977  | R.D. 141                 | Monsanto  | OWN    |
| 171-4(k,l) BULB VEGETABLE GROUP:                                |                            |            |                 |             |                          |           |        |
|   | Onions, Leeks, Garlic      |            | 40783101        | 08/08/1988  | 3205, -06, -07           | IR-4      | PER    |
| 171-4(k,l) LEAFY VEGETABLES (EXCEPT BRASSICA VEGETABLES) GROUP: |                            |            |                 |             |                          |           |        |
|   | Lettuce                    |            | 108159          | 10/14/1977  | R.D. 141                 | Monsanto  | OWN    |
| 171-4(k,l) BRASSICA LEAFY VEGETABLES GROUP:                     |                            |            |                 |             |                          |           |        |
|   | Cabbage                    |            | 108159          | 10/14/1977  | R.D. 141                 | Monsanto  | OWN    |
|   | Broccoli                   |            | 40802801        | 08/18/1988  | 3210                     | IR-4      | PER    |
|   | Mustard Greens             |            | 40802802        | 08/18/1988  | 3211                     | IR-4      | PER    |
| 171-4(k,l) LEGUME VEGETABLES GROUP:                             |                            |            |                 |             |                          |           |        |
|   | Dried Beans                |            | 108159          | 10/14/1977  | R.D. 141                 | Monsanto  | OWN    |
|   |                            |            | 44837501        | 05/21/1999  | R.D. 1481                | Monsanto  |        |
|   |                            |            | 44837502        | 05/21/1999  | R.D. 1481                | Monsanto  |        |
|   | Lentils                    |            | 108159          | 10/14/1977  | R.D. 141                 | Monsanto  | OWN    |
|   | Peas                       |            | 43807201        | 09/27/1995  | R.D. 1312                | Monsanto  | OWN    |
|   | Peas (import)              |            | 42312804        | 05/01/1992  | R.D. 1092                | Monsanto  | OWN    |

RESIDUE  
CHEMISTRY 40  
CFR 158.240  
(860 Series)

| NO. | STUDY NAME                              | DATA<br>REQ'D | EPA MRID<br>NUMBER | SUBMIT<br>DATE | MONSANTO<br>DOCUMENT<br>NUMBER | SUBMITTER | STATUS |
|-----|---|---------------|--------------------|----------------|--------------------------------|-----------|--------|
|     | Dry Beans - Canada                      |               | 44837501           | 05/20/1999     | R.D. 1481                      | Monsanto  | OWN    |
|     |   |               | 44837502           | 05/20/1999     | R.D. 1481                      | Monsanto  | OWN    |
|     | Snap Beans                              |               | 108159             | 10/14/1977     | R.D. 141                       | Monsanto  | OWN    |
|     | Soybeans/Soybean Processing Commodities |               | 123953             | 11/12/1973     | R.D. 47                        | Monsanto  | OWN    |
|     |   |               | 38908              | 07/12/1974     | R.D. 51                        | Monsanto  | OWN    |
|     |   |               | 33954              | 12/19/1975     | R.D. 86                        | Monsanto  | OWN    |
|     |   |               | 61555              | 03/01/1976     | R.D. 92                        | Monsanto  | OWN    |
|     |   |               | 108153             | 06/17/1977     | R.D. 132                       | Monsanto  | OWN    |
|     |   |               | 24503              | 12/12/1977     | R.D. 145                       | Monsanto  | OWN    |
|     |   |               | 108203             | 07/06/1978     | R.D. 187                       | Monsanto  | OWN    |
|     |   |               | 84936              | 10/21/1981     | R.D. 380                       | Monsanto  | OWN    |
|     |   |               | 156793             | 02/21/1986     | R.D. 617                       | Monsanto  | OWN    |
|     |   |               | 43260401           | 05/27/1994     | R.D. 1232                      | Monsanto  | OWN    |
|     |   |               | 43260402           | 05/27/1994     | R.D. 1232                      | Monsanto  | OWN    |
|     |   |               | 43260403           | 05/27/1994     | R.D. 1232                      | Monsanto  | OWN    |

## 171-4(k,l) FOLIAGE OF LEGUME VEGETABLES GROUP:

Bean Vines and Hay  
Lentil Forage and Hay  
Soybean Forage and Hay

|        |            |          |          |     |
|--------|------------|----------|----------|-----|
| 123953 | 11/12/1973 | R.D. 47  | Monsanto | OWN |
| 38908  | 07/12/1974 | R.D. 51  | Monsanto | OWN |
| 33954  | 12/19/1975 | R.D. 86  | Monsanto | OWN |
| 61555  | 03/01/1976 | R.D. 92  | Monsanto | OWN |
| 108153 | 06/17/1977 | R.D. 132 | Monsanto | OWN |
| 108203 | 07/06/1978 | R.D. 187 | Monsanto | OWN |
| 84936  | 10/21/1981 | R.D. 380 | Monsanto | OWN |
| 156793 | 02/21/1986 | R.D. 617 | Monsanto | OWN |

## 171-4(k,l) FRUITING VEGETABLES (EXCEPT CURCUBITS) GROUP:



RESIDUE  
CHEMISTRY 40  
CFR 158.240  
(860 Series)

| NO. | STUDY NAME | DATA REQ'D | EPA MRID NUMBER | SUBMIT DATE | MONSANTO DOCUMENT NUMBER | SUBMITTER | STATUS |
|-----|------------|------------|-----------------|-------------|--------------------------|-----------|--------|
|-----|------------|------------|-----------------|-------------|--------------------------|-----------|--------|

## 171-4(k,l) CURCUBITS VEGETABLES GROUP

## 171-4(k,l) CITRUS FRUITS GROUP:

Citrus/Citrus Processed Commodities

|          |            |          |          |     |
|----------|------------|----------|----------|-----|
| 44496    | 01/19/1976 | R.D. 88  | Monsanto | OWN |
| 39142    | 01/19/1976 | R.D. 89  | Monsanto | OWN |
| 40159401 | 04/10/1987 | R.D. 766 | Monsanto | OWN |

## 171-4(k,l) POME FRUITS GROUP:

|        |            |          |          |     |
|--------|------------|----------|----------|-----|
| 108129 | 09/01/1976 | R.D. 108 | Monsanto | OWN |
| 108186 | 09/01/1976 | R.D. 107 | Monsanto | OWN |

## 171-4(k,l) STONE FRUITS GROUP:

Plums

|          |            |           |          |     |
|----------|------------|-----------|----------|-----|
| 40785301 | 07/29/1988 | R.D. 878  | Monsanto | OWN |
| 43315701 | 07/19/1994 | R.D. 1236 | Monsanto | OWN |

## 171-4(k,l) SMALL FRUITS AND BERRIES GROUP:

Blackberries

Blueberries

Cranberries

Grapes/Raisins

|          |            |           |          |     |
|----------|------------|-----------|----------|-----|
| 53002    | 09/10/1980 | R.D. 314  | IR-4     | PER |
| 40779101 | 08/02/1988 | 3505      | IR-4     | PER |
| 38770    | 10/04/1974 | R.D. 53   | Monsanto | OWN |
| 108132   | 12/31/1976 | R.D. 118  | Monsanto | OWN |
| 40785303 | 07/29/1988 | R.D. 878  | Monsanto | OWN |
| 43315702 | 07/19/1994 | R.D. 1236 | Monsanto | OWN |

Raspberries

Strawberries

## Data Matrix: Glyphosate

EPA Reg. Nos.  
524-NEWRESIDUE  
CHEMISTRY 40  
CFR 158.240  
(860 Series)

| NO.                             | STUDY NAME                                     | DATA<br>REQ'D | EPA MRID<br>NUMBER | SUBMIT<br>DATE | MONSANTO<br>DOCUMENT<br>NUMBER | SUBMITTER | STATUS |
|---------------------------------|--|---------------|--------------------|----------------|--------------------------------|-----------|--------|
| 171-4(k,l) TREE NUTS:           |  |               |                    |                |                                |           |        |
|                                 | Almond, Almond Hulls, Macadamia, Pecan, Walnut |               | 111945             | 11/30/1976     | R.D. 109                       | Monsanto  | OWN    |
|                                 |  |               | 42155301           | 01/03/1992     | R.D. 1043                      | Monsanto  | OWN    |
|                                 |  |               | 42155302           | 01/03/1992     | R.D. 1043                      | Monsanto  | OWN    |
| 171-4(k,l) CEREAL GRAINS GROUP: |  |               |                    |                |                                |           |        |
|                                 | Barley   |               | 38908              | 07/12/1974     | R.D. 51                        | Monsanto  | OWN    |
|                                 |  |               | 108203             | 07/06/1978     | R.D. 187                       | Monsanto  | OWN    |
|                                 | Barley (import)                                |               | 42312801           | 05/01/1992     | R.D. 1092                      | Monsanto  | OWN    |
|                                 |  |               | 42312802           | 05/01/1992     | R.D. 1092                      | Monsanto  | OWN    |
|                                 |  |               | 43807202           | 09/27/1995     | R.D. 1312                      | Monsanto  | OWN    |
|                                 |  |               | 43827802           | 09/27/1995     | R.D. 1312                      | Monsanto  | OWN    |
|                                 |  |               | 43845401           | 09/27/1995     | R.D. 1312                      | Monsanto  | OWN    |
|                                 | Corn Grain                                     |               | 123953             | 11/12/1973     | R.D. 47                        | Monsanto  | OWN    |
|                                 |  |               | 38908              | 07/12/1974     | R.D. 51                        | Monsanto  | OWN    |
|                                 |  |               | 48284              | 05/15/1975     | R.D. 80                        | Monsanto  | OWN    |
|                                 |  |               | 49054              | 12/19/1975     | R.D. 85                        | Monsanto  | OWN    |
|                                 |  |               | 23336              | 12/12/1977     | R.D. 144                       | Monsanto  | OWN    |
|                                 |  |               | 23268              | 12/12/1977     | R.D. 150                       | Monsanto  | OWN    |
|                                 |  |               | 108203             | 07/06/1978     | R.D. 187                       | Monsanto  | OWN    |
|                                 |  |               | 37687              | 03/30/1979     | R.D. 231                       | Monsanto  | OWN    |
|                                 |  |               | 130807             | 10/12/1983     | R.D. 486                       | Monsanto  | OWN    |
|                                 |  |               | 40502602           | 01/29/1988     | R.D. 848                       | Monsanto  | OWN    |
|                                 |  |               | 43655701           | 05/19/1995     | R.D. 1237                      | Monsanto  | OWN    |
|                                 |  |               | 45066901           | 03/16/2000     | R.D. 1501                      | Monsanto  | OWN    |
|                                 | Roundup Ready® Corn                            |               | 43712702           | 06/29/1995     | R.D. 1306                      | Monsanto  | OWN    |
|                                 |  |               | 44531301           | 04/02/1998     | R.D. 1409                      | Monsanto  | OWN    |
|                                 |  |               | 45077401           | 03/23/2000     | R.D. 1502                      | Monsanto  | OWN    |

00580F0072

RESIDUE  
CHEMISTRY 40  
CFR 158.240  
(860 Series)

| NO. | STUDY NAME  | DATA REQ'D | EPA MRID NUMBER | SUBMIT DATE | MONSANTO DOCUMENT NUMBER | SUBMITTER | STATUS |
|-----|---|------------|-----------------|-------------|--------------------------|-----------|--------|
|     | Corn Oil/Corn Milled Products                       |            |                 |             |                          |           |        |
|     |   |            | 40502604        | 01/29/1988  | R.D. 848                 | Monsanto  | OWN    |
|     |   |            | 41478101        | 04/02/1990  | R.D. 978                 | Monsanto  | OWN    |
|     |   |            | 43655702        | 05/19/1995  | R.D. 1237                | Monsanto  | OWN    |
|     | Oat Grain   |            | 38908           | 07/12/1974  | R.D. 51                  | Monsanto  | OWN    |
|     |   |            | 108203          | 07/06/1978  | R.D. 187                 | Monsanto  | OWN    |
|     | Oats / Processed Oats (Preharvest Import Tolerance) |            | 43870201        | 11/16/1995  | R.D. 1326                | Monsanto  | OWN    |
|     |   |            | 43870202        | 11/16/1995  | R.D. 1326                | Monsanto  | OWN    |
|     |   |            | 43870203        | 11/16/1995  | R.D. 1326                | Monsanto  | OWN    |
|     |   |            | 43870204        | 11/16/1995  | R.D. 1326                | Monsanto  | OWN    |
|     |   |            | 43927401        | 11/16/1995  | R.D. 1326                | Monsanto  | OWN    |
|     |   |            | 43927402        | 11/16/1995  | R.D. 1326                | Monsanto  | OWN    |
|     | Rice Grain  |            | 38908           | 07/12/1974  | R.D. 51                  | Monsanto  | OWN    |
|     |   |            | 38908           | 07/12/1974  | R.D. 51                  | Monsanto  | OWN    |
|     | Sorghum Grain                                       |            | 108203          | 07/06/1978  | R.D. 187                 | Monsanto  | OWN    |
|     |   |            | 109271          | 04/09/1982  | R.D. 410                 | Monsanto  | OWN    |
|     |   |            | 103375          | 06/04/1982  | R.D. 423                 | Monsanto  | OWN    |
|     |   |            | 130807          | 10/12/1983  | R.D. 486                 | Monsanto  | OWN    |
|     |   |            | 144722          | 10/10/1984  | R.D. 555                 | Monsanto  | OWN    |
|     |   |            | 40502601        | 01/29/1988  | R.D. 849                 | Monsanto  | OWN    |
|     |   |            | 43342001        | 08/15/1994  | R.D. 1192                | Monsanto  | OWN    |
|     |   |            | 44646601        | 09/01/1998  | R.D. 1434                | Monsanto  | OWN    |
|     | Grain Sorghum Processed Products                    |            | 40502603        | 01/29/1988  | R.D. 849                 | Monsanto  | OWN    |
|     |   |            | 41472001        | 04/02/1990  | R.D. 977                 | Monsanto  | OWN    |
|     |   |            | 43342002        | 08/15/1994  | R.D. 1192                | Monsanto  | OWN    |
|     |   |            | 123953          | 11/12/1973  | R.D. 47                  | Monsanto  | OWN    |
|     | Wheat Grain   |            | 38908           | 07/12/1974  | R.D. 51                  | Monsanto  | OWN    |
|     |   |            | 108203          | 07/06/1978  | R.D. 187                 | Monsanto  | OWN    |
|     |   |            | 122715          | 12/02/1982  | R.D. 460                 | Monsanto  | OWN    |
|     |   |            | 150835          | 11/13/1984  | R.D. 561                 | Monsanto  | OWN    |
|     |   |            | 41484301        | 04/16/1990  | R.D. 983                 | Monsanto  | OWN    |



## Data Matrix: Glyphosate

EPA Reg. Nos.  
524-NEWRESIDUE  
CHEMISTRY 40  
CFR 158.240  
(860 Series)

| NO. | STUDY NAME            | DATA<br>REQ'D | EPA MRID<br>NUMBER | SUBMIT<br>DATE | MONSANTO<br>DOCUMENT<br>NUMBER | SUBMITTER | STATUS |
|-----|-----------------------|---------------|--------------------|----------------|--------------------------------|-----------|--------|
|     | Roundup Ready® Wheat  |               | 45174701           | 07/19/2000     | R.D. 1512                      | Monsanto  | OWN    |
|     | Wheat Milled Products |               | 150835             | 11/13/1984     | R.D. 561                       | Monsanto  | OWN    |

## 171-4(k,l) FORAGE, FODDER, AND STRAW OF CEREAL GRAINS GROUP:

Barley Forage, Hay, and Straw

38908 07/12/1974 R.D. 51 Monsanto OWN

Corn Forage, Silage, and Fodder

108203 07/06/1978 R.D. 187 Monsanto OWN

123953 11/12/1973 R.D. 47 Monsanto OWN

38908 07/12/1974 R.D. 51 Monsanto OWN

49054 12/19/1975 R.D. 85 Monsanto OWN

48284 05/15/1975 R.D. 80 Monsanto OWN

23336 12/12/1977 R.D. 144 Monsanto OWN

23268 12/12/1977 R.D. 150 Monsanto OWN

108203 07/06/1978 R.D. 187 Monsanto OWN

37687 03/30/1979 R.D. 231 Monsanto OWN

130807 10/12/1983 R.D. 486 Monsanto OWN

40502602 01/29/1988 R.D. 848 Monsanto OWN

43655701 05/19/1995 R.D. 1237 Monsanto OWN

43712702 06/29/1995 R.D. 1306 Monsanto OWN

45066901 03/16/2000 R.D. 1501 Monsanto OWN

45077401 03/23/2000 R.D. 1502 Monsanto OWN

Oat Forage, Hay, and Straw

38908 07/12/1974 R.D. 51 Monsanto OWN

108203 07/06/1978 R.D. 187 Monsanto OWN

Rice Straw

38908 07/12/1974 R.D. 51 Monsanto OWN

Sorghum Forage, Fodder, Silage, and Hay

38908 07/12/1974 R.D. 51 Monsanto OWN

108203 07/06/1978 R.D. 187 Monsanto OWN

109271 04/09/1982 R.D. 410 Monsanto OWN

103375 06/04/1982 R.D. 423 Monsanto OWN

130807 10/12/1983 R.D. 486 Monsanto OWN

006010072

RESIDUE  
CHEMISTRY 40  
CFR 158.240  
(860 Series)

| NO. | STUDY NAME                                      | DATA<br>REQ'D | EPA MRID<br>NUMBER | SUBMIT<br>DATE | MONSANTO<br>DOCUMENT<br>NUMBER | SUBMITTER | STATUS |
|-----|---|---------------|--------------------|----------------|--------------------------------|-----------|--------|
|     | Wheat Forage, Hay, and Straw                    |               | 144722             | 10/10/1984     | R.D. 555                       | Monsanto  | OWN    |
|     |   |               | 40502601           | 01/29/1988     | R.D. 849                       | Monsanto  | OWN    |
|     |   |               | 123953             | 11/12/1973     | R.D. 47                        | Monsanto  | OWN    |
|     |   |               | 38908              | 07/12/1974     | R.D. 51                        | Monsanto  | OWN    |
|     |   |               | 108203             | 07/06/1978     | R.D. 187                       | Monsanto  | OWN    |
|     |   |               | 122715             | 12/02/1982     | R.D. 460                       | Monsanto  | OWN    |
|     |   |               | 150835             | 11/13/1984     | R.D. 561                       | Monsanto  | OWN    |
|     |   |               | 41484301           | 04/16/1990     | R.D. 983                       | Monsanto  | OWN    |
|     |   |               | 45174701           | 07/19/2000     | R.D. 1512                      | Monsanto  | OWN    |
|     |   |               |                    |                |                                |           |        |
|     | 171-4(k,l) GRASS FORAGE, FODDER, AND HAY GROUP: |               | 108147             | 04/28/1978     | R.D. 175                       | Monsanto  | OWN    |
|     |   |               | 53004              | 09/12/1980     | R.D. 313                       | Monsanto  | OWN    |
|     |   |               | 76805              | 05/08/1981     | R.D. 359                       | Monsanto  | OWN    |
|     |   |               | 45089401           | 03/27/2000     | R.D. 1494                      | Monsanto  | OWN    |
|     | 171-4(k,l) NONGRASS ANIMAL FEEDS GROUP:         |               |                    |                |                                |           |        |
|     |   |               |                    |                |                                |           |        |
|     |   |               |                    |                |                                |           |        |
|     |   |               |                    |                |                                |           |        |
|     |   |               |                    |                |                                |           |        |
|     | Alfalfa Seed and Hay                            |               | 108133             | 12/31/1976     | R.D. 117                       | Monsanto  | OWN    |
|     |   |               | 108147             | 04/28/1978     | R.D. 175                       | Monsanto  | OWN    |
|     |   |               | 53004              | 09/12/1980     | R.D. 313                       | Monsanto  | OWN    |
|     |   |               | 76805              | 05/08/1981     | R.D. 359                       | Monsanto  | OWN    |
|     |   |               | 40541304           | 02/23/1988     | R.D. 856                       | Monsanto  | OWN    |
|     | 171-4(k,l) MISCELLANEOUS COMMODITIES            |               | 43077001           | 12/16/1993     | R.D. 1190                      | Monsanto  | OWN    |
|     |   |               |                    |                |                                |           |        |
|     |   |               |                    |                |                                |           |        |
|     |   |               |                    |                |                                |           |        |
|     |   |               |                    |                |                                |           |        |
|     | Acerola<br>Asparagus<br>Avocados                |               | 108144             | 02/17/1978     | R.D. 157                       | Monsanto  | OWN    |
|     |   |               | 40642401           | 04/04/1988     | 3212                           | IR-4      | PER    |
|     |   |               | 108149             | 11/15/1977     | R.D. 147                       | Monsanto  | OWN    |
|     |   |               | 108164             | 07/07/1978     | R.D. 189                       | Monsanto  | OWN    |

## Data Matrix: Glyphosate

EPA Reg. Nos.  
524-NEWRESIDUE  
CHEMISTRY 40  
CFR 158.240  
(860 Series)

| NO. | STUDY NAME                                 | DATA<br>REQ'D | EPA MRID<br>NUMBER | SUBMIT<br>DATE | MONSANTO<br>DOCUMENT<br>NUMBER | SUBMITTER | STATUS |
|-----|--|---------------|--------------------|----------------|--------------------------------|-----------|--------|
|     | Bananas (including Plantains)              |               | 108175             | 06/14/1979     | R.D. 244                       | Monsanto  | OWN    |
|     | Breadfruit                                 |               | 41049401           | 1989           | 3474                           | IR-4      | PER    |
|     | Canistel                                   |               | 41049401           | 1989           | 3474                           | IR-4      | PER    |
|     | Canola /Oilseed Rape / Processing          |               | 42312803           | 05/01/1992     | R.D. 1092                      | Monsanto  | OWN    |
|     |  |               | 43807203           | 09/27/1995     | R.D. 1312                      | Monsanto  | OWN    |
|     |  |               | 44528801           | 04/03/1998     | R.D. 1408                      | Monsanto  | OWN    |
|     |  |               | 44528802           | 04/03/1998     | R.D. 1408                      | Monsanto  | OWN    |
|     |  |               | 44528803           | 04/03/1998     | R.D. 1408                      | Monsanto  | OWN    |
|     |  |               | 44528804           | 04/03/1998     | R.D. 1408                      | Monsanto  | OWN    |
|     | Coconut, Coconut Oil                       |               |                    | 03/09/1982     | R.D. 411                       | Monsanto  | OWN    |
|     | Coffee                                     |               | 51981              | 06/01/1976     | R.D. 102                       | Monsanto  | OWN    |
|     | Cottonseed                                 |               | 123953             | 11/12/1973     | R.D. 47                        | Monsanto  | OWN    |
|     |  |               | 61553              | 03/01/1976     | R.D. 92                        | Monsanto  | OWN    |
|     |  |               | 108176             | 05/17/1976     | R.D. 100                       | Monsanto  | OWN    |
|     |  |               | 108153             | 06/17/1977     | R.D. 132                       | Monsanto  | OWN    |
|     |  |               | 108203             | 07/06/1978     | R.D. 187                       | Monsanto  | OWN    |
|     |  |               | 60103              | 11/03/1980     | R.D. 322                       | Monsanto  | OWN    |
|     | Cotton Forage and Hay                      |               | 123953             | 11/12/1973     | R.D. 47                        | Monsanto  | OWN    |
|     |  |               | 61553              | 03/01/1976     | R.D. 92                        | Monsanto  | OWN    |
|     |  |               | 108163             | 05/17/1976     | R.D. 100                       | Monsanto  | OWN    |
|     |  |               | 60103              | 11/03/1980     | R.D. 322                       | Monsanto  | OWN    |
|     |  |               | 61555              | 03/01/1976     | R.D. 92                        | Monsanto  | OWN    |
|     | Cotton Processing Fractions                |               | 43571801           | 03/06/1995     | R.D. 1297                      | Monsanto  | OWN    |
|     | Roundup Ready® Cotton                      |               | 41049401           | 1989           | 3474                           | IR-4      | PER    |
|     | Dates                                      |               |                    |                |                                |           |        |
|     | Guava                                      |               | 59050              | 11/19/1980     |                                | IR-4      | PER    |
|     | Jackfruit                                  |               | 41049401           | 1989           | 3474                           | IR-4      | PER    |
|     | Jabotica                                   |               | 41049401           | 1989           | 3474                           | IR-4      | PER    |
|     | Kiwi Fruit                                 |               |                    |                |                                |           |        |
|     | Mangos                                     |               | 40580401           | 04/04/1988     | 3213                           | IR-4      | PER    |
|     | Oil Seeds (Flax, Mustard, Rape, Sunflower) |               |                    | 11/26/1979     | R.D. 278                       | Monsanto  | OWN    |



## Data Matrix: Glyphosate

RESIDUE  
CHEMISTRY 40  
CFR 158.240  
(860 Series)

| NO. | STUDY NAME                      | DATA<br>REQ'D | EPA MRID<br>NUMBER | SUBMIT<br>DATE | MONSANTO<br>DOCUMENT<br>NUMBER | SUBMITTER | STATUS |
|-----|---------------------------------|---------------|--------------------|----------------|--------------------------------|-----------|--------|
|     | Oil Seed Rape / Canola (Import) |               | 43827801           | 09/27/1995     | R.D. 1312                      | Monsanto  | OWN    |
|     | Olives, Processed               |               | 43807203           | 09/27/1995     | R.D. 1312                      | Monsanto  | OWN    |
|     |                                 |               | 108175             | 06/14/1979     | R.D. 244                       | Monsanto  | OWN    |
|     | Olive Oil                       |               | 42398401           | 07/08/1992     | R.D. 1115                      | Monsanto  | OWN    |
|     |                                 |               | 108175             | 06/14/1979     | R.D. 244                       | Monsanto  | OWN    |
|     | Palm Oils                       |               | 42398401           | 07/08/1992     | R.D. 1115                      | Monsanto  | OWN    |
|     | Papayas                         |               | 63713              | 08/02/1976     | R.D. 106                       | Monsanto  | OWN    |
|     | Peanuts/Peanut Forage and Hay   |               | 28856              | 11/20/1980     | ?                              | Monsanto  | OWN    |
|     |                                 |               | 144341             | 02/18/1980     | R.D. 289                       | Monsanto  | OWN    |
|     |                                 |               | 40750702           | 09/12/1984     | R.D. 552                       | Monsanto  | OWN    |
|     | Peanut Processed Commodities    |               | 144341             | 06/20/1988     | R.D. 875                       | Monsanto  | OWN    |
|     |                                 |               | 40750702           | 09/12/1984     | R.D. 552                       | Monsanto  | OWN    |
|     | Pineapple                       |               | 43824301           | 06/20/1988     | R.D. 875                       | Monsanto  | OWN    |
|     |                                 |               | 43824302           | 06/20/1988     | R.D. 875                       | Monsanto  | OWN    |
|     |                                 |               | 111945             | 10/18/1995     | R.D. 1325                      | IR-4      | PER    |
|     | Pistachio Nuts                  |               | 41049401           | 10/18/1995     | R.D. 1325                      | IR-4      | PER    |
|     | Sapote                          |               | 41049401           | 11/30/1976     | R.D. 110                       | Monsanto  | OWN    |
|     | Soursop                         |               | 61558              | 1989           | 3474                           | IR-4      | PER    |
|     | Sugarcane                       |               | 108140             | 1989           | 3474                           | IR-4      | PER    |
|     |                                 |               | 136876             | 03/01/1976     | R.D. 93                        | Monsanto  | OWN    |
|     |                                 |               | 108168             | 06/21/1976     | R.D. 104                       | Monsanto  | OWN    |
|     |                                 |               | 108140             | 03/01/1978     | R.D. 163                       | Monsanto  | OWN    |
|     | Sugarcane Processed Commodities |               | 78823              | 08/25/1978     | R.D. 197                       | Monsanto  | OWN    |
|     | Tea, Instant Tea                |               |                    | 06/21/1976     | R.D. 104                       | Monsanto  | OWN    |
|     |                                 |               |                    | 06/30/1981     | R.D. 369                       | Monsanto  | OWN    |

| RESIDUE                                     | NO.      | STUDY NAME  | DATA REQ'D | EPA MRID NUMBER | SUBMIT DATE | MONSANTO DOCUMENT NUMBER | SUBMITTER     | STATUS |
|---|----------|---|------------|-----------------|-------------|--------------------------|---------------|--------|
| CHEMISTRY 40<br>CFR 158.240<br>(860 Series) |          |   |            |                 |             |                          |               |        |
| RESIDUE                                     |          |   |            |                 |             |                          |               |        |
| CHEMISTRY                                   |          |   |            |                 |             |                          |               |        |
| APPENDIX C                                  |          |   |            |                 |             |                          |               |        |
| MAGNITUDE OF THE RESIDUE: POTABLE WATER     |          |   |            |                 |             |                          |               |        |
|   | 171-4(f) | Canals  |            | 39381           | 09/25/1975  |                          | Public Doc. 1 | PL     |
|   |          |   |            | 36224           | 09/25/1975  |                          | Monsanto      | OWN    |
|   |          | Flooded Levees  |            | 39381           | 09/25/1975  |                          | Monsanto      | OWN    |
|   |          |   |            | 36224           | 09/25/1975  |                          | Monsanto      | OWN    |
|   |          | Ponds   |            | 39381           | 09/25/1975  |                          | Public Doc. 2 | PL     |
|   |          |   |            | 36224           | 09/25/1975  |                          | Monsanto      | OWN    |
|   |          | Potable Water Treatment                               |            | 36224           | 09/25/1975  |                          | Monsanto      | OWN    |
|   |          | Ditchbank / Flowing Water                             |            | 108173          | 12/22/1978  |                          | Monsanto      | OWN    |
|   |          | Shoreline / Impounded Water                           |            | 108173          | 12/22/1978  |                          | Monsanto      | OWN    |
|   |          | Total Area / Impounded Water                          |            | 108173          | 12/22/1978  |                          | Monsanto      | OWN    |
|   |          | Whole Cross-Section / Flowing Water                   |            | 77238           | 06/29/1981  |                          | Monsanto      | OWN    |
|   |          | 1 R.D. Comes. USDA/ARS. Prosser, Washington.          |            |                 |             |                          |               |        |
|   |          | 2 R.D. Blackburn. WSDA/ARS. Fort Lauderdale, Florida. |            |                 |             |                          |               |        |

| RESIDUE                                     | NO. | STUDY NAME       | DATA REQ'D | EPA MRID NUMBER | SUBMIT DATE | MONSANTO DOCUMENT NUMBER | SUBMITTER | STATUS |
|---|-----|------------------|------------|-----------------|-------------|--------------------------|-----------|--------|
| CHEMISTRY 40<br>CFR 158.240<br>(860 Series) |     |                  |            |                 |             |                          |           |        |
| RESIDUE                                     |     |                  |            |                 |             |                          |           |        |
| CHEMISTRY                                   |     |                  |            |                 |             |                          |           |        |
| APPENDIX D                                  |     |                  |            |                 |             |                          |           |        |
| MAGNITUDE OF THE RESIDUE: FISH              |     |                  |            |                 |             |                          |           |        |
| 171-4(g) ACCUMULATION STUDIES               |     |                  |            |                 |             |                          |           |        |
|   |     | Rainbow Trout    |            | 108173          | 12/22/1978  | R.D. 200                 | Monsanto  | OWN    |
|   |     |                  |            | 36229           | 09/25/1975  | ?                        | Monsanto  | OWN    |
|   |     | Largemouth Bass  |            | 108173          | 12/22/1978  | R.D. 200                 | Monsanto  | OWN    |
|   |     |                  |            | 36229           | 09/25/1975  | ?                        | Monsanto  | OWN    |
|   |     | Channel Catfish  |            | 108173          | 12/22/1978  | R.D. 200                 | Monsanto  | OWN    |
|   |     |                  |            | 94971           | 02/26/1982  | R.D. 407                 | Monsanto  | OWN    |
|   |     |                  |            | 36229           | 09/25/1975  | ?                        | Monsanto  | OWN    |
|   |     | Bluegill Sunfish |            | 36229           | 09/25/1975  | ?                        | Monsanto  | OWN    |
|   |     |                  |            | 76491           | 11/12/1973  | R.D. 47                  | Monsanto  | OWN    |
|   |     |                  |            | 41228301        | 09/05/1989  | R.D. 955                 | Monsanto  | OWN    |
|   |     |                  |            | 41228302        | 09/05/1989  | R.D. 955                 | Monsanto  | OWN    |
|   |     | Crayfish         |            | 108173          | 12/22/1978  | R.D. 200                 | Monsanto  | OWN    |
|   |     |                  |            | 132170          | 06/15/1983  | R.D. 478                 | Monsanto  | OWN    |
|   |     |                  |            | 155120          | 11/22/1985  | R.D. 646                 | Monsanto  | OWN    |
|   |     | Mollusks         |            | 108173          | 12/22/1987  | R.D. 200                 | Monsanto  | OWN    |
|   |     |                  |            | 128690          | 06/15/1983  | R.D. 478                 | Monsanto  | OWN    |
|   |     |                  |            | 154311          | 11/22/1985  | R.D. 646                 | Monsanto  | OWN    |



| No.  | Study Name                               | EXPLANATION   |
|--|--|---|
| APPENDIX E   |  |   |
| EXPLANATION OF DATA NOT REQUIRED TO SUPPORT REGISTRATION |  |   |
| 40 CFR 156.15-190  |  |   |
| PRODUCT CHEMISTRY  |  |   |
| 63-6   | Boiling Point (TGAI)                     | Data is required only if the technical material is a liquid at room temperature. Glyphosate is a solid.   |
| 63-18  | Viscosity (MP)                           | Data is required if the material is a liquid. Glyphosate is a solid.  |
| 63-19  | Miscibility (MP)                         | Data is required if the material is an emulsifiable liquid. Glyphosate is a water-soluble solid.  |
| 63-19  | Miscibility (EP)                         | Data is required if the product is an emulsifiable liquid. Roundup herbicide is a ready-to-use liquid, not to be diluted.   |
| 63-21  | Dielectric Breakdown Voltage (EP)        | Data is required for liquid products that are used around electrical equipment. When Roundup is applied as a herbicide there is virtually no circumstance where it would be in contact with electrical equipment.   |
| 40 CFR 158.340   |  |   |
| TOXICOLOGY   |  |   |
| 81-3   | Inhalation LC50 - Rat (MP & TGAI)        | Requirement waived by EPA on 1/5/88.  |
| 81-6   | Dermal Sensitization (MP)                | Data is required if repeated contact with human skin is expected. Glyphosate is not used in a manner where such contact is likely.  |
| 81-7   | Acute Delayed Neurotoxicity - Hen (TGAI) | Not required unless test material is an organophosphate, or a metabolite or degradation product which causes acetyl cholinesterase depression, or is structurally related to a substance that causes delayed neurotoxicity. Glyphosate does not trigger this.   |
| 82-3   | 90-Day Dermal (TGAI)                     | Data are needed if product used for purposeful dermal application to, or prolonged exposure of, human skin; or if pesticidal use will result in comparable exposure (e.g., swimming pool) or if other study criteria are met. Glyphosate does not trigger this. |
| 82-4   | 90-Day Inhalation - Rat (TGAI)           | Data is required if the use may result in repeated inhalation exposure at a concentration likely to be toxic. The use pattern for glyphosate does not warrant this testing.   |
| 82-5   | 90-Day Neurotoxicity - Hen (TGAI)        | Data is required if acute delayed neurotoxicity test showed neuropathy or neurotoxicity, or if closely related structurally to a compound which can induce these effects. Glyphosate does not cause acute neurotoxicity.  |
| 82-5   | 90-Day Neurotoxicity - Mammal (TGAI)     | Data is required if acute oral, dermal or inhalation studies showed neuropathy or neurotoxicity. Glyphosate does not trigger this testing.  |
| 86-1   | Domestic Animal Safety                   | Required on a case-by-case basis. The known properties of glyphosate and the registered uses do not warrant this testing.   |
| 40 CFR 158.490   |  |   |
| WILDLIFE AND AQUATIC ORGANISMS                           |  |   |
| 71-3   | Wild Mammal Toxicity (TGAI)              | Tests are required on a case-by-case basis depending on the results of lower tier studies such as acute and subacute testing, intended use pattern, and pertinent environmental properties. Results from other glyphosate studies have not triggered this.      |

| No.  | Study Name  | EXPLANATION  |
|--|---|--|
| <b>APPENDIX E</b>  |   |  |
| <b>EXPLANATION OF DATA NOT REQUIRED TO SUPPORT REGISTRATION</b>  |   |  |
| Data are required on a case-by-case basis depending on the results of lower tier studies such as acute and subacute Mammals and Birds (TEP) testing, intended use pattern, and environmental properties. Results from other glyphosate studies do not trigger. |   |  |
| 71-5   | Simulated and Actual Field Testing -                        | Results of tier one and tier two studies with Roundup and glyphosate demonstrate that these materials have a low level of toxicity to aquatic species. Results from other studies have not triggered this requirement. |
| 72-7   | Simulated or Actual Field Testing - Aquatic Organisms (TEP) |  |
| <b>40 CFR 158.540 PLANT PROTECTION</b>   |   |  |
| 121-1  | Target Area Phytotoxicity (TEP)                             | Data are required only for Special Review and certain public health situations.  |
| 123-1  | Tier II Seed Germination / Seedling Emergence (TGAI)        | Required if >25% detrimental effect in one or more plant species was found in the corresponding Tier I test. Glyphosate does not trigger this requirement.   |
| 124-1  | Tier III Terrestrial Field (TEP)                            | Required if >25% detrimental effect in one or more plant species was found in the corresponding Tier II test. Glyphosate does not trigger this requirement.  |
| 124-2  | Tier III Aquatic Field (TEP)                                | Required if >50% detrimental effect on any plant species was found in the corresponding Tier II test. Glyphosate does not trigger this requirement.  |
| <b>40 CFR 158.590 NONTARGET INSECT</b>   |   |  |
| 141-2  | Honeybee - Toxicity of Residues on Foliage (TEP)            | As data from acute study indicate very low toxicity, no further testing is required.   |
| 151-5  | Field Testing for Pollinators (TEP)                         | As data from acute study indicate very low toxicity, no further testing is required.   |
| <b>40 CFR 158.390 REENTRY PROTECTION</b>   |   |  |
| Glyphosate is applied to undesirable grass and broadleaf weeds to control or otherwise mitigate their growth or competition with crops, turf or ornamentals. It is unlikely that people would contact such treated vegetation on a regular or extended basis.  |   |  |
| <b>132-1 through 133-4 ENVIRONMENTAL FATE</b>  |   |  |
| 161-4  | Photodegradation In Air (TGAI or PAIRA)                     | Waived by the Agency on May 15, 1992.  |
| 162-2  | Anaerobic Soil (TGAI or PAIRA)                              | Not required if anaerobic aquatic metabolism study has been conducted.   |
| 163-2  | Volatility - Lab (TEP)                                      | Waived by the Agency on May 15, 1992.  |
| 163-3  | Volatility - Field (TEP)                                    | Waived by the Agency on May 15, 1992.  |
| 164-4  | Combination and Tank Mixes                                  | The Agency has not requested any specific studies. However, glyphosate tank mix residue data are available under the 40 CFR 158.240 Residue Data section of this data package.   |
| 164-5  | Soil Dissipation, Long-Term (TEP)                           | Required if pesticide residues do not dissipate readily in soil. Glyphosate has a sufficiently short half-life in soil that this study has not been required.  |
| <b>40 CFR 158.240 RESIDUE CHEMISTRY</b>  |   |  |

| No.   | Study Name           | EXPLANATION   |
|---|----------------------|---|
| APPENDIX E EXPLANATION OF DATA NOT REQUIRED TO SUPPORT REGISTRATION |                      |   |
| 171-4   | Food Handling (EP)   | Data on residues in food or feed in food handling establishments are required whenever a pesticide is to be used in food/feed handling establishments. Glyphosate end-use products are not used in such establishments. |
| 171-5   | Reduction of Residue | Reduction of residue is required when the assumption of tolerance level residues results in an unsafe level of exposure. The registered uses of glyphosate do not trigger this requirement.                             |



**Part II**

**Petition for Registration of a New Pesticide Product**



**MON 78307 Herbicide**  
**EPA Reg No. 71995-new EO**

[Editorial Notes: Bracketed text [ ] is for internal use or serves as a 'place holder' for graphics. Parenthetical text ( ) denotes optional wording.]

[Refer to APPENDIX 1 for consolidated list of label claims.]

[Refer to APPENDIX 2 for packaging related claims/instructions]

*Superseded by label  
emailed 10/29/01*

**MON 78307 Herbicide**

**Active Ingredient**

Glyphosate, isopropylamine salt ..... 18.0 %

Diquat dibromide..... 0.73 %

Other Ingredients .....81.27 %

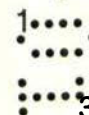
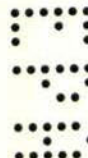
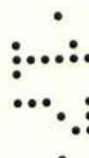
**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

See back panel booklet for additional precautionary statements.

(Read precautions and directions on back label.)

NET [xxx]





# Product Facts

Treats up to xx sq ft (approx. size of XX tennis courts)  
[ When calculating coverage, one gallon treats 300 sq ft and a tennis court is 2,106 sq ft.]

**KILLS** [Illustrate grassy, broadleaf and woody weeds]

**WEEDS** ALL TYPES OF WEEDS & GRASSES

**WHERE TO USE**

- On patios, walkways, driveways, gravel or mulch beds
- Around flowers, shrubs or trees
- Along fences
- In large areas - For lawn replacement  
- For flower (ornamental) garden plot preparation

**AMOUNT** For best results

**TO USE** • 6 fl oz (12 Tbs) per gallon of water

[phone icon] **Questions, Comments or Medical Information**

call 1-800-225-2883

[www.roundup.com](http://www.roundup.com)

(call 1-888-Roundup)

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

## MIXING INSTRUCTIONS

[optional tank sprayer illustration]

**Tank Sprayer** (plastic, aluminum, fiberglass, plastic-lined steel or stainless steel. **(Do not (mix, store or) apply with (in) a galvanized or unlined steel sprayer.)**

- (For tough established weeds / For best results,) add 6 fl oz (12 Tbs) to 1 gallon of water.
- (For easy to kill weeds such as small seedlings, add 3 fl oz ( 6 Tbs) to 1 gallon of water.)
- (Spot treat or spray evenly over 300 sq ft.)

[optional DNS illustration]

**Hose-End Sprayer**

For large areas consider using the **Ortho Dial 'n Spray®**

- Set dial to 5 1/3 or 6 oz.
- To sprayer jar add 6 fl oz (12 Tbs) for each 300 sq ft. **DO NOT ADD WATER.**
- Spray evenly over measured area.
- After spraying, unused product can be poured back into its original container.

**MON 78307 Herbicide**  
**EPA Reg No. 71995-new- *EO***

1 Tablespoon (Tbs) = 3 teaspoons (tsp)

1 fl oz = 2 Tbs

Do not (mix, store or) apply with (in) a galvanized or unlined steel (except stainless steel) sprayer, or through any irrigation system.

To clean sprayer after use, rinse sprayer and all sprayer parts with water 3 times. Spray rinse water on bare soil or gravel. After cleaning, sprayer may be used for other products.

**HOW TO APPLY** *[optional illustration]*

- Spray the weeds or grasses you want to kill until thoroughly wet.
- When spot treating weeds around desirable plants, shield plants from drift with a sheet (piece) of cardboard or plastic. If desirable plants are accidentally sprayed, rinse off immediately with water.

**IMPORTANT:** Do not spray plants or grasses you like - they may die too. Not recommended for spot weed control in lawns since MON 78307 kills lawn grasses.

**WHEN TO APPLY** *[optional illustration]*

- Use anytime weeds and grasses are actively growing. (Apply when weeds are actively growing.)
- For best results, apply during warm, sunny weather (above 60° F) to accelerate systemic movement from foliage to roots.
- Apply when air is calm to prevent drift to desirable plants.
- (RAIN-PROOF:) Rain or watering 2 hours (30, 60, or 90 minutes) after application will not wash away effectiveness.
- (Apply when weeds are small and before seeds form. Established (Hard to kill) weeds may require a repeat application.)

**ADDITIONAL TIPS** *[optional illustration]*

- **To Kill Vines**
  - If vines are growing up poles, fences, or tree trunks with mature bark, cut vines to a height of 3 to 4 feet and spray vines thoroughly.
  - If vines are climbing shrubs or tree trunks with green bark, cut vines at base and treat as directed for stumps or spray regrowth. If spraying regrowth, shield shrubs and green bark from spray drift with a sheet (piece) of cardboard or plastic.
- **To Kill Stumps**
  - Cut living stump close to ground.
  - Drive 4 to 5 holes into freshly cut stump.



## MON 78307 Herbicide

EPA Reg No. 71995-new *EO*

- Immediately pour undiluted product into holes.

### • For Lawn Replacement

Use MON 78307 to kill a (an old) (an unwanted) lawn and (its) weeds before planting (a) new lawn (OR prior to laying a patio, sidewalk, or driveway).

- Skip one mowing before spraying.
- Use 6 fl oz (12 Tbs) per gallon of water for each 300 sq ft.
- Wait 7 days after last application to rake, till or replant with seed or sod.

*[Alternate text]*

- Wait 7 days for weeds and lawn to die. Repeat if necessary.
- Rake or till to prepare area for planting seed or sod.
- (If green patches remain after 7 days, reapply.)
- If soil is dry, water before application and 2 to 3 days after application.

*[Alternate section]*

### • (Great) (MON 78307) Project: Lawn Renovation

Use MON 78307 to kill sections of a weed-infested lawn before reseeding.

- Apply MON 78307 to lawn weeds and grasses at a rate of 6 fl oz (12 Tbs) per gallon of water (covers 300 sq ft.)
- Wait 7 days after application to rake, till or replant with seed or sod.
- Work (1" of) Scotts Lawn Soil with Starter Fertilizer into existing soil, mixing well.
- For thick, green grass – guaranteed -- spread Scotts Pure Premium (or other Scotts grass seed) and water regularly (daily) to keep area moist (follow package instructions).
- For best results, add a thin layer of Scotts Miracle-Gro Sphagnum Peat Moss over the area to help seeded area stay moist throughout germination period.

### • Kudzu

For best results, apply in mid to late summer when vines are mature and actively growing.

### • Wild Blackberry

Spray anytime plants are actively growing. Dead canes should be cut down and removed. Reapplication is often required to kill deep roots.

### • Poison Ivy & Poison Oak

Contact with these plants anytime of the year can cause an allergic reaction. Spray anytime plants are actively growing, but at least 4 weeks before the first killing frost in the fall. Reapply, if new growth appears. Handle dead plants with rubber gloves. Dispose of plants and rubber gloves in tightly sealed garbage bags.

### • For Flowerbed (Ornamental Plot) Preparation

Use MON 78307 to kill weeds, grasses and brush before planting flowers.

- If soil is dry, water before application and 2 to 3 days after application.
- Apply evenly over treatment area.



**MON 78307 Herbicide**  
**EPA Reg No. 71995-new E0**

- Wait 2 days before planting.

*[Alternate section]*

- (Great) (MON 78307) Project: Flower Garden Preparation  
Use MON 78307 to kill unwanted weeds and grasses before planting flowers, trees or shrubs.
  - Apply MON 78307 to vegetation in planting bed at a rate of 6 fl oz (12 Tbs) per gallon of water (covers 300 sq ft.)
  - Wait 1 day after application before planting.
  - For best results, add 3" of Miracle-Gro Garden Soil to your garden. Rototill or spade to a depth of 6", mixing well.
  - Feed flowering (new) plants every 2 weeks with Miracle-Gro Plant Food (follow package instructions).

**WHEN TO REPLANT** *[optional illustration]*

- All ornamental flowers, trees and shrubs may be planted **2 days after** application.
- Lawn grasses may be planted **7 days after** application.

**HOW IT WORKS** *[optional illustration]*

MON 78307 (Roundup) enters plants through foliage and moves systemically to the roots, killing weeds by stopping the production of a substance found in plants. Any product (Roundup) not absorbed by plants will be deactivated when it hits the soil. Weeds usually yellow and wilt within hours with complete kill in 1 to 2 weeks.

**KILLS ALL TYPES OF WEEDS & GRASSES** *[optional illustration]*

**Weeds (including):** Artichoke thistle, beggarweed, black medic, blue mustard, blue toadflax, brassbuttons, broadleaf plantain, burclover, buttercup, Canada thistle, cattail, chickweed, cocklebur, common groundsel, common mullein, common plantain, common ragweed, creeping beggarweed, creeping-charlie, curly dock, dandelion, dog fennel, evening primrose, false dandelion, fiddleneck, field bindweed (wild morningglory), field pennycress, filaree, Florida pusley, garden spurge, henbit, horsenettle, horseradish, horseweed/ marestalk, iceplant, knapweed, knotweed, lambsquarters, lantana, little bittercress, London rocket, mallow, mayweed, milkweed, mouseear chickweed, narrowleaf (buckhorn) plantain, nightshade (silverleaf), oldenlandia, oxalis, Pennsylvania smartweed, pennywort, poison hemlock, prickly lettuce, primrose, prostrate spurge, puncturevine, ragweed, red clover, redroot pigweed, shepherdspurge, smooth catsear, smooth pigweed, sowthistle, spotted spurge, tansy ragwort, tansymustard, teaweed, trumpetcreeper, tumble mustard, Virginia creeper, white clover, whitetop, wild barley, wild mustard, wild oats, wild sweet potato, yellow starthistle, and other broadleaf weeds

**Grasses (including):** Annual bluegrass, annual ryegrass, bahiagrass, barnyardgrass, bentgrass, Bermudagrass, brome grass, Cogongrass, crabgrass, creeping bentgrass,

**MON 78307 Herbicide**  
**EPA Reg No. 71995-new EO**

dallisgrass, fall panicum, fescue, field sandbur, foxtail, goosegrass, guineagrass, Johnsongrass, Kentucky bluegrass, kikuyugrass, lovegrass, maidencane, nimblewill, nutsedge, orchardgrass, pampas grass, perennial ryegrass, purple nutsedge, quackgrass, sandspur, smooth brome grass, sprangletop, St. Augustinegrass, tall fescue, Texas panicum, Timothy, torpedograss, vaseygrass, witchgrass, yellow nutgrass, zoysia and other grassy weeds

**Brush (Tough Weeds), Unwanted Trees, Shrubs & Vines (including):**

Alder, ash, (quacking) aspen, blackberry, bluegum eucalyptus, broom (French, Scotch), buckwheat, ceanothus, chamise, cherry, coyote brush, dewberry, elderberry, elm, eucalyptus, giant reed, hawthorn, hazel, honeysuckle, kudzu, locust, madrone, maple, oak, persimmon, poison oak, poison ivy, poplar, raspberry, sage, sagebrush, salmonberry, saltcedar, sassafras, sumac, sweetgum, tan oak, thimbleberry, tree tobacco, wild rose (multiflora) willow and other tough weeds

**STORAGE AND DISPOSAL** *[trash can illustration]*

**STORAGE:** Store in original container in a safe place.

**DISPOSAL: Empty Container:** Put in trash. (Recycle where available.) **Partially Full Container:** Call your local waste disposal service (1-800-CLEANUP). If local laws permit, put partially full container in trash. Never pour product down any drain.

**PRECAUTIONARY STATEMENTS** *[optional illustration]*

*[re-entry icon]* People and pets may enter treated area after spray has dried.

**HAZARDS TO HUMANS & DOMESTIC ANIMALS**

**CAUTION:**

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

Harmful if inhaled. Avoid breathing spray mist. Remove contaminated clothing and wash clothing before reuse.



| FIRST AID  |  |
|--|--|
| If in eyes   | <ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently for 15-20 minutes.</li><li>• Remove contact lenses, if present, after first 5 minutes, then continue rinsing.</li><li>• Call a poison control center (1-800-225-2883 or 1-888-768-6387 or 1-888-Roundup) or doctor for treatment advice.</li></ul>             |
| If inhaled   | <ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li><li>• Call a poison control center (1-800-225-2883 or 1-888-768-6387 or 1-888-Roundup) or doctor for treatment advice.</li></ul> |
| Emergency Medical Information  |  |
| Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may contact 1-800-225-2883 (1-888-768-6387 or 1-888-Roundup) for emergency medical treatment information. |  |

**ENVIRONMENTAL HAZARDS:** Do not apply directly to any body of water. Do not contaminate water when disposing of equipment washwaters.

**NOTICE:** Buyer assumes all responsibility for safety and use not in accordance with directions.

This product is protected by U.S. Patents No. 5,683,958 and No. 5,703,015 and No. 6,063,733 and No. 6,121,199 and No. 6,121,200. Other patents pending. No license granted under any non-U.S. patent(s).

This is an end-use product. Monsanto does not intend and has not registered if for reformulation or repackaging.

[phone icon] **Questions, Comments or Medical Information**  
call 1-800-225-2883      [www.roundup.com](http://www.roundup.com)  
(call 1-888-Roundup)

Roundup is a trademark of Monsanto Company

©[ ] MONSANTO COMPANY

Manufactured for  
Monsanto Company, Lawn & Garden Products  
P.O. Box 1750  
Columbus, OH 43216  
Form [ ]



**MON 78307 Herbicide**

**EPA Reg No. 71995-new** *EO*

EPA Reg. No. 71995-new

EPA Est. 239-IA-3<sup>I</sup>, 58996-MO-1<sup>A</sup>

Superscript is first letter of lot number

Made in USA

**APPENDIX 1 – Consolidated List of Label Claims**  
*[Ordered alphabetically]*

- Absorbed into both broadleaf and grassy weeds
- Absorbs on contact, starts working immediately
- Absorbs 3 times (X) faster to the root than competitive brands for quicker, more effective root kill
- Also use for large jobs such as lawn renovation and vegetable and flower garden preparation
- Approved for most (many) lawn and garden uses
- Before [*weed graphics*] / After [*weed graphics*]
- Begins absorbing on contact
- Can be used for habitat restoration, controlling exotic vegetation, and for site preparation of wildlife food plots
- Can reseed or sod lawns 7 days after treatment
- Concentrated for extra value
- Contains FastAct™ (technology)
- Covers up to 300 sq ft per gallon of spray
- Dare to compare (a picture is worth 1,000 words): Roundup works faster than any competitor (imitator)
- Dead Weeds Guaranteed
- Dead Weeds Guaranteed or Your Money Back
- Dead (weeds) in a day
- Does not have soil activity
- Economical
- Economical concentrate formula
- Easy to apply with an Ortho Dial 'n Spray®, hose-end, tank or (hand held) trigger sprayer
- Even if it rains – Roundup won't lose its effectiveness
- Exclusive Roundup formula
- Experience the Roundup Advantage (peel back this panel for detail) (see details inside / underneath this booklet) (see details on back panel)
- Fast-acting formula
- Fast-acting formula works twice as fast (50% faster)
- Fast-acting formula absorbs to root more quickly
- Faster than ever
- Fastest Roundup (formulation) ever
- For control that doesn't (won't) wash away
- For general weed control - kills weeds and grasses in 2 to 4 weeks - roots and all
- For weeds that are dead in a (one) day
- Guaranteed same effective results even if it rains within hours
- Guaranteed effective: Kills over 200 types of weeds and grasses, roots and all, with



**MON 78307 Herbicide**  
**EPA Reg No. 71995-new**

EO

just one application

- Guaranteed (we guarantee it)
- Ideal for killing unwanted weeds and grasses throughout your yard. Use along fences; in cracks of walks, drives and patios; and around flower beds, trees and shrubs
- Imitators (competitors) (other weedkillers) cannot match Roundup's proven performance: [picture of Roundup versus generic competitors]
- Improved extra strength formula
- Improved formula, completely kills even the toughest weeds and grasses
- Keeps driveways, walkways, landscaping beds, and flower gardens weed-free all season long
- Kills almost all (annual and perennial) weeds, grasses and other unwanted plants
- Kills existing weeds only, no residual activity in soil
- Kills more weeds in more places.
- Kills over 100 weeds
- Kills (to) the root
- Kills (the toughest weeds and grasses) the root so weeds (they) don't come back
- Kills the root so weeds don't come back
- Kills the roots of (both) broadleaf and grassy weeds
- Kills the weed you see and the root you don't
- Kills unwanted weeds and grasses, roots and all
- Kills weeds in flowerbeds, around trees, shrubs and fences, and on patios, paths, sidewalks, sidewalk cracks, walkways, driveways, and other areas in your yard
- Kills weeds, roots and all
- Lawns and gardens can be reseeded or planted soon after treatment
- Make only what you need
- Multipurpose grass and broadleaf weed control
- NEW!
- Next day (this weekend) results: Begins killing on contact, visible results in 24 hours
- No odor
- No root. No weed. No problem.
- Nobody kills more weeds
- Nobody's better than Roundup
- Nobody's faster
- Nobody's better
- Nothing is more effective
- Nothing works better
- Nothing kills more weeds
- NOW!
- Now a shorter wait for replanting!
- Once it enters the plant, it won't wash off
- One application kills over 200 types of weeds and grasses, roots and all (maximum effectiveness)
- Only Roundup's effectiveness (formula) won't be washed away by rain or watering 2 hours (1 hour)(30 minutes) after treatment
- Proven (trusted) performance: Only Roundup works the first time, every time – and



**MON 78307 Herbicide**  
**EPA Reg No. 71995-new EO**

has for 25 years

- Provides maximum control: Kills weeds to the root so they don't ever come back
- Quick kill formula (the toughest)
- Quick-action formula lets you see results 50% faster than other brands
- Quick-action formula lets you see results two times faster than other brands
- Ornamental gardens can be reseeded or planted 1 day after treatment
- RainFast in hours - enters the plant on contact
- RAIN-PROOF™ (Mistake Proof)
- RAIN-PROOF™ in two hours (30, 60, or 90 minutes)
- Roundup can be used (almost) anywhere weeds and grasses grow, including patios, walkways, and driveways; along fences; in landscaping beds; or around flowers, shrubs and trees
- (Roundup) Kills the weed you see and the root others leave behind
- Roundup's exclusive (patented) formula (technology) kills to the root so weeds don't come back
- Roundup kills weeds and grasses in – Patios – Driveways – Sidewalks – Ornamental Gardens and other non-lawn areas
- Satisfaction guaranteed or we will gladly refund purchase price
- Satisfaction guaranteed or your money back with proof of purchase
- See results in hours
- See results in 24 hours
- Speeds absorption to the root for complete kill
- Spray weeds (Use) in flowerbeds, around trees, shrubs and around fences, and on patios, paths, sidewalks, sidewalk cracks, walkways, driveways, and other areas in your yard
- Starts to kill in hours
- Starts working immediately (in hours)
- Stronger
- The best weed killer you can buy – guaranteed (we guarantee it)
- The fastest weed killer (starts working immediately)
- The fastest concentrate formula
- The most effective weed (and grass) killer (you can buy)
- The strongest weed and grass killer you can buy: Guaranteed
- Superior results
- Transorb technology speeds Roundup to the root to kill even tough weeds
- Twice as fast
- Ultra concentrated formula
- Ultra formula
- (Use) For Brush Control
- (Use) For General Weed Control: Use along fences, paths, patios, sidewalks and driveways, around trees, shrubs, ornamental plantings, flowerbeds, and buildings, and in brick and gravel walkways.
- Use to trim and edge landscape areas.
- (Use) For Landscaping: Use to prepare areas for planting of ornamentals, trees, shrubs, desert landscapes, rock gardens, flowerbeds or similar plantings.
- Use for large jobs like garden plot preparation and lawn replacement (renovation)

**MON 78307 Herbicide**  
**EPA Reg No. 71995-new EO**

- (Use) For Lawn Renovation
- (Use) For Spot Spraying: Use in and around flowerbeds, ornamental trees, shrubs, fences, driveways and walkways
- (Use) For Stumps
- (Use) For Wildlife Areas: Use to prepare areas for planting wildlife food. Exotic or undesirable plants can be controlled to allow for planting or recovery of native plant species. Spot treatments can be made to selectively remove unwanted plants.
- (Use in) Apply with a Big Shot™ Multi-Purpose Sprayer or other tank sprayer, Ortho Dial 'n Spray® or other hose-end sprayer, or a (hand held) trigger sprayer
- Use to prepare sites: for large plantings, for planting flowerbeds and ornamentals gardens, and for renovating lawns
- Visible effects are gradual wilting and yellowing advancing to complete browning and root destruction.
- Water based formula
- Won't wash off
- Won't wash away
- Works first time, every time
- Works in hours
- Works only when absorbed by the foliage of weeds
- *[Promotional options]*
- Save up to \$[x] on (your) next purchase
- Free weed guide inside
- Free [    ] with this purchase of Roundup concentrate quart
- FREE REFILL
- FREE SAMPLE
- SAMPLE NOT FOR SALE

APPENDIX 2 – Packaging Related Claims

NET xx fl oz (qt or gal) (xx mL or L)  
6 fl oz (177 mL)  
13 oz (384 mL)  
16 fl oz (1 pt) (473 mL)  
32 fl oz (1 qt) 946 mL)  
53.7 fl oz (0.42 gal) (1.5 L)  
64 fl oz (1/2 gal) (1.89 L)  
128 fl oz (1 gal) (3.79 L)

[corner flap]

OPEN

Resealable Label for Directions & Precautions

PULL HERE TO OPEN LABEL

PEEL HERE

PEEL OPEN FOR USE DIRECTIONS AND FURTHER INFORMATION

PRESS TO RESEAL

[Net contents] Makes up to 'X' gallons

Makes between 'X' – 'Y' gallons

Mix with water to make 'X' gallons of spray solution

Covers up to 'Z' sq ft

Mix with water to cover up to 'Z' sq ft

[  $X = \text{net contents} \div 3$  ]

[  $Y = \text{net contents} \div 6$  ]

[  $Z = X * 300$  ]

[Pint]

Makes up to 5 gallons

Makes between 2½ - 5 gallons

Mix with water to make 5 gallons of spray solution

Covers up to 1,500 sq ft

Mix with water to cover up to 1,500 sq ft

[Quart]

Makes up to 10 gallons

Makes between 5 – 10 gallons

Mix with water to make 10 gallons of spray solution

Covers up to 3,000 sq ft

Mix with water to cover up to 3,000 sq ft

[0.42 Gallon] Makes up to 18 gallons

Makes between 9 – 18 gallons

Mix with water to make 18 gallons of spray solution

Covers up to 5,400 sq ft



**MON 78307 Herbicide**  
**EPA Reg No. 71995-new** *EO*

Mix with water to cover up to 5,400 sq ft

*[Half Gallon]* Makes up to 21 gallons

Makes between 10 – 21 gallons

Mix with water to make 21 gallons of spray solution

Covers up to 6,300 sq ft

Mix with water to cover up to 6,300 sq ft

*[Gallon]* Makes up to 42 gallons

Makes between 21 – 42 gallons

Mix with water to make 42 gallons of spray solution

Covers up to 12,600 sq ft

Mix with water to cover up to 12,600 sq ft

New! Larger size, covers up to [ 'Z' ] sq ft

With (the convenient) measuring cup, mixing MON 78307 (controlling weeds around your home) has never been easier

With (the convenient) measuring cup, controlling weeds all around your home has never been this fast and easy

Section D

**Residue Removal Procedures**

There are no food or feed uses included in the MON 78307 herbicide label, therefore, residue removal is unnecessary.

00690F0072

Section E  
**Effectiveness Data**

Monsanto requests that the Administrator waive the requirement of efficacy data under provision 3(c)(5) of FIFRA as amended.

0070 OF 0072



Section F  
**Tolerances**

There are no food or feed uses included in the MON 78307 herbicide label, therefore, residue removal is unnecessary.

00710F0072

## Section G

### **Reasonable Grounds**

#### **Reasonable Grounds in Support of the Registration of MON 78307:**

The introduction of MON 78307 (Reg. No. 71995-XXX) will provide residential consumers with a fast acting concentrated product in the Roundup portfolio.

00720F0072

